

To The Rev. Mr. Apsworth.
from the Author, who begs his acceptance of this part of
An Inquiry into the present state of Medical Surgery.
&c. it being a distinct Essay, and fully illustrative, of the
subject upon which it is written. The remainder is cal-
culated chiefly, for the use of the faculty.

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An Inquiry into the
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AN
ESSAY
ON THE
INSEPARABILITY
OF THE DIFFERENT
BRANCHES OF MEDICINE.

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A N
E S S A Y
ON THE
INSEPARABILITY
OF THE DIFFERENT
BRANCHES OF MEDICINE,
TOWARDS
IMPROVING THE STUDY AND PRACTICE
O F
MEDICAL SURGERY.

K
By THOMAS KIRKLAND, M.D.
Member of the ROYAL MEDICAL SOCIETY at Edinburgh.

RATIONALEM QUIDEM PUTO MEDICINAM ESSE DEBERE,
INSTRUI VERO AB EVIDENTIBUS CAUSIS, OBSCURISOM-
NIBUS, NON A COGITATIONE ARTIFICIS, SED AB IBSA
ARTE REJECTIS,

CELSUS.

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BRANIFFS OF MEDICINE



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1870



To the Right Honourable
FRANCIS Earl of **HUNTINGDON**,
Baron Hastings, Hungerford, Newmark, Peverel,
Botreaux, Molins, Moels, and de Homet.

MY LORD,

THIRTY-SIX years have now
elapsed, since I was first ho-
noured with the patronage and
friendship of your noble family;
and now, like the navigator, who,

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after

D E D I C A T I O N.

after failing in quest of knowledge, returns to communicate his discoveries, I, from gratitude, dedicate to your lordship the result of my observation and experience. In the following Inquiry into the Present State of Medical Surgery, my aim is, to recommend this branch of the profession; which, notwithstanding its high importance, appears not to have been duly attended to by modern writers. The object of it is to assist nature without mutilating the patient, and to lessen the necessity of manual operations.

Should my labours, in their result, contribute to answer this purpose, I know they will meet your lordship's

DEDICATION.

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ship's wishes ; than whom, no person is more susceptible of the feelings of humanity. You will read with pleasure whatever tends to avert an increase of misery from those who are so unfortunate as to require chirurgical assistance.

This introduction, your lordship knows, is intended to remove the impediments to medico-chirurgical knowledge, by recommending the study and practice of medicine in the manner of the Greeks. I am happy in being supported in opinion by your lordship; whose mature judgment and literary acquirements are universally known : and I have ventured to make my sentiments

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public,

DEDICATION.

public, in hopes that others may entertain the same favourable ideas of them your lordship was pleased to express when you honoured my manuscript with a perusal. It is intended for the service of mankind, and will not require any other recommendation to your lordship.

I have the honour to be,

My Lord,

Your Lordship's

Most obedient, and

most humble servant,

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Ashby de la Zouch,

February 1, 1783.

THOMAS KIRKLAND.

P R E F A C E.

THE following introduction, which refers to the subsequent Inquiry, &c. is meant to encourage the study of that branch of medicine, which cures external diseases chiefly by medicaments, and to prove the inseparability of Physic and what is now called Surgery. Nor is it possible to have a clearer instance of the necessity of a work of this kind, than sensible writers in these days advising chronic ulcers of the legs not to be admitted into the hospitals; because they seldom obtain a radical cure, and are injurious to the charity. Among the other tracts are the medico-chirurgical works I have already offered to the public, now formed into regular essays, and improved by the addition of such knowledge as I have since derived from mature reflection and experience,

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In examining the medical part of surgery, I have endeavoured to point out what doctrines ought to be rejected, and what retained; where improvements are wanted, and, as far as practice hath enabled me, in what manner they may properly be made. And knowing that good practice springs only from the application of reason to experience, I have in general argued from indisputable facts, and I hope without losing sight of the direct object. Wherever I decry theory, I mean that only which is hypothetical, and destitute of proper support.

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INTRODUCTION:

BEING

An ESSAY on the INSEPARABILITY
of the Different BRANCHES of MEDICINE.

*Id ante omnia scire convenit, quod omnes medicinae partes, ita
connexae sunt, ut ex toto separari non possint.* CELSUS.

WHOEVER is acquainted with the
general preface to *Celsus de Medi-*
cina, must know that the above axiom,
taken from the beginning of his fifth book,
was the result of strict inquiry, mature de-
liberation, and sound judgment. But
though universally allowed to be true, it
has been perverted, and the science of
medicine retarded in its progress; for not-
withstanding it is supposed, that all its
branches are now cultivated in greater
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has been
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progress.

perfection, than in former times, it is possible we may only be propagating error in new forms. If mutability is a sign of imperfection, as Pliny asserts, medicine was never more imperfect than in these days, owing to the cause assigned, and to the speculative theories men of fertile invention daily make, with the same facility that a spider spins a thread. The *lohoch. e myrrha* of Fuller, is a most powerful remedy in nervous coughs; but upon the mechanical doctrine taking place, nothing would do in disorders of the lungs but removing them with wedge and hammer, and it was thus driven out of use. In these days, the nauseating doctrine* of spasm in fevers, probably squeezes practice into an awkward form, by torturing the patient to remove effects which never exist. The preparations of lead were much

* The horrid practice of keeping up a nausea for several hours, to take off spasms of the skin!

disused

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disused till Mr. Goulard rescued them from neglect, and supported their external application against the false analogy of speculative men. The same may be said of a thousand other remedies ; so that neglecting valuable medical compositions, and preferring those suited to the theory of the times, seems, in too many instances, to constitute what is deemed improvement in medicine. Nor can there be a greater proof of ignorance, in the treatment of diseases, than altering practice, as the weathercock of theory directs ; it being a convincing argument, that we know no certain method of relieving or curing them, and that we are guided by medical caprice.

Indeed surgery, properly so called, is almost exempt from these strictures ; for the *principal part* being accomplished by the hand, its effects are evident, and it is practised upon more certain grounds than the cure of inward distempers, in which

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it may often be doubted, whether the recovery is owing to remedies, or the constitution: accordingly, manual operation, and a knowledge of some complaints requiring this treatment, have been so much improved in England, within this last half century, that almost every one who undertakes the cure of external disorders, becomes an expert operator.

Nevertheless, though this branch of medicine has received such great advantages, an inquiry into the nature and cure of those external diseases, relieved by medicaments, has been too much neglected: for as soon as Mr. Samuel Sharp's surgical treatise appeared, operations in surgery, as they have been improperly called, became the chief object of attention. Students were soon taught to believe, that the nature and cure of inflammation, abscesses, wounds, ulcers, fractures, luxations, &c. were settled and agreed on,
by

by all the surgeons of eminence in Europe*; and hence those who thought not for themselves, saw no necessity of examining, what had been written upon these subjects. Perhaps also the parade and eclat, that commonly attend a successful operation, might be an inducement to pursue that part of the business, by which fame was most readily acquired; especially in those who had not been properly educated in the practice of medical surgery. Formerly the knowledge of this art descended from master to pupil, and the Tyro was regularly taught the methods of cure which had been approved, and handed down from one surgeon to another. But, unfortunately for the science, some years ago, most of those who commenced surgeons in England had been bred Apothecaries; and were never instructed in the art of curing external dis-

Even the cure of external diseases requiring the use of medicaments has been neglected.

* Mr. Sharp's Crit. Inq. Preface.

eases, until a year's attendance in an hospital, and being able to perform operations, gave them credit for being proficient in a branch of knowledge they had not a sufficient opportunity of attaining; it being impossible to learn medical surgery without a series of years experience. Accordingly, it must have been observed, that many men with this education, who have shone as operators, have not been able to distinguish themselves, in preventing the necessity of this treatment, or in the cure of those diseases, where operations cannot with any sort of propriety be introduced.

The dressing of
fores in
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learned.

The dressing and cure of fores is not to be learned by merely looking on; and as nothing is worse in its consequences than bad habits, the topical application of remedies ought only to be studied from exact and attentive practice. Dressings must be applied, with the proper intention

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tion of assisting nature; and the hand, by use, will acquire dexterity in carrying into execution the dictates of an enlightened mind. A man may see bandage used daily, and hear of its advantages, without being able to employ it otherwise than to do injury, until use and observation make him familiar in the application. So much depends upon the manner of using external remedies, that it is a notorious fact, that those surgeons who have been properly educated from their youth, will accomplish a cure with the same kind of dressings which prove useless, if not pernicious, in the hands of those who were never taught the right manner of applying them. A mechanical exactness is required; accordingly, those who have a mechanical genius make the best dressers, because it leads them to apply the whole of their dressings accurately. It is to be remarked, that though recent ulcers, arising

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ing from common accidents, such as wounds, bruises, &c. will, by the force of nature, often heal, in whatever manner they are dressed; yet proper treatment will greatly facilitate their cure. Therefore, unless nature is properly consulted and assisted in the cure of chronical ulcers, not only with suitable dressings, but by attending to every point of the sore, and to the parts about it, with precision, the surgeon will give frequent proofs, that he has learned his business only in part. Nor indeed is it possible for him to form any true judgment of the appearance of an ulcer, without knowing the effects that different modes of dressing produce.

Why not
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learned in
hospitals,

Now this kind of instruction is not to be expected in hospitals in general; though great advantages, from seeing a variety of cases, and operations, may be acquired by attending them. The number of patients dressed in a very short space of time, will
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not admit of great nicety ; the pupil has not time to examine them with attention and accuracy ; the hasty and general manner of dressing will fall very short of proper instruction ; and if he has not been previously well grounded in judicious private practice, he will adopt a bad method of proceeding * : Of course proving deficient in the cure of those sores where art is required, he turns his thoughts to the use of the knife, where he is more likely to be successful. Indeed, I believe a deficiency in Medico-chirurgical knowledge, has often arisen from want of a proper initiation into the art ; and I am persuaded, this has been the source of more mischief than is generally imagined ; bad practice having been transmitted from master to

* Those who have not had proper opportunities of receiving instruction, during the early part of their education, should not omit seeing the private practice of the hospital surgeon, under whom they enter, in order to learn a proper method of dressing.

pupil,

pupil, by those who had not been taught a judicious method, in the application of topical remedies. Otherwise I am certain the cure of chronical ulcers would not so often have been a stumbling block: the old surgeons knew how to cure them, and I have every reason to believe, they will for the most part be readily and safely healed, when scientific principles are pursued.

As the study of operations has been cultivated, the medical part of surgery has degenerated.

But whatever were the motives, a fondness for the knife prevailed, and even, in these days, Mr. Pott tells us *, that operations are the great and almost only object, which those who come to the hospitals for improvement have in view: and I am sorry to observe the same views too often continue, when they afterwards reside in the country. Chirurgical writers also have chiefly been engaged in this

* Preface to Treat, on Fistul, Lachrym.

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purfuit *. Instead of following the plan of Parey, Hildanus, Aquapendens, Wifeman, Turner, &c. who attended to the improvement of medical furgery, the moft eminent furgeons in thefe days confine their inquiries to thofe complaints, where the principal part is accomplifhed by the hand. At the fame time, fo little attention has been paid to the cure of ulcers, which make by much the greateft part of medical furgery, that Mr. Elfe, knowing the infufficiency of modern praftice, lately wrote a paper† to recal furgeons to the ufe of bandage in the cure of fore legs!!! fairly evincing, that as the art gained knowledge in one part, it has degenerated in another. Nor can there be a ftronger proof of this degeneracy, or greater marks of quackery, than the difpofition to believe, that thefe complaints may

* Mr. Bilguer on amputation in particular muft be excepted.

† Med. Inq. vol. iv.

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be cured by specifics ; and that we have a universal remedy in the vinegar of lead. The principles incontestibly right, laid down by Parey * from the Greeks, for the topical management of compound fractures, and formerly followed by the best surgeons in Europe, are now generally neglected, or not understood ; and our refinements too often extinguish the life of the patient by a deluge of matter †.

The consequence of suffering the medical practice of surgery to degenerate, and the advantages to the surgeon of attending to this branch of the profession.

Surely suffering the medical practice of surgery to degenerate, is disgraceful to the science, and highly injurious to society. For he who omits to inform himself in the methods of preventing operations, will perform more than are necessary ; and many a limb which might, I am persuaded, have been saved, has been taken off, because the operator had never attended properly to the art of healing. Every

* Lib. xv, cap. 24 & 25.
Comp. Fractures,

† See Essay on

blockhead

blockhead can *amputate a leg* ; but how much more praise-worthy is he whose skill enables him to effect a cure, and preserve the limb ? The discerning part of mankind will esteem him ; he will ever be distinguished from the herd, who are incapable of giving nature proper assistance under difficulties ; and his own reflections will fully reward him for the pains he may have taken, in acquiring that knowledge his profession requires. Besides, if he is well skilled in medical surgery, the event of necessary operations (when he is obliged to have recourse to them) will be more successful, from a judicious choice of proper applications. For supposing a surgeon to remove a scirrhus with dexterity from the breast, and to dress the succeeding ulcer with common digestives ; by irritating, he may bring on a return of the disease, which perhaps might not have happened, if proper sedatives

tives had been all along employed, and care taken to keep the parts about the cicatrix in a state incapable of being easily fretted *. Or suppose the operation of trepanning to be well performed, yet if the surgeon does not know what kind of medicaments should be used, to subdue *fungi* of the brain, and when, and in what manner, to suppress evacuations from this substance; the patient will sometimes fall a victim to the ignorance of his assistant †. In short, will not operations, however well performed, often prove abortive, if the surgeon has not made medical surgery the principal part of his study? And yet I am fearful, too many who have confined their inquiries to operations chiefly, have adopted the opinion, that nature being the curer of wounds, no external application whatever assists, farther than by keeping the parts soft, and defending them

* See Cancer.

† See Wounds of the Head.
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from the air; and that dry lint, and any mild ointment, are fully sufficient for every purpose!

It however must be confessed, that manual operation often eradicates diseases, which are incapable of being removed by other remedies; and it is certainly a most useful, and necessary branch of the profession: they have done well, who have devised the most proper method of performing it; and an operator, with knowledge and steadiness, is worthy of esteem. Nevertheless, though some men have raised themselves to the head of the art, by their practice and writings in this branch of medicine, yet, I think with M. de la Peyronie *, that those surgeons who rest their merit on the ability of performing operations *alone*, at once lessen themselves, and depreciate their profession. By this course of practice, they effectually

Operations useful, and the method of performing them readily acquired.

* Preface to vol. i. Memoirs Surg. Paris.

prove

prove that their attainments in the art have been confined to a very narrow compass; because, after all, the use of the knife requires but a small degree of mechanical dexterity. Operations are very readily undertaken, and as readily performed, by Tyros, after a little practice upon dead bodies; and illiterate men, totally unconscious of any one law of nature, or of any one principle in the organization of an animal frame, are equally dexterous and successful in their operations with the knife, upon brutes. In this representation, we hope to be understood merely as censuring hackneyed modes of practice; being sufficiently aware, that diseases requiring operations out of the common way, frequently present themselves, where original design is required, and which can only be well conceived and executed by men of genius and reflection.

Society

Society would have received greater advantages from the art of surgery, if equal attention had been paid to the nature of inflammation, ulcers, and abscesses. For however these may appear to be settled, yet there is not any branch of medicine requires more correction; much less having been done since the time of Galen, than is generally imagined; erroneous principles, and bad practice, having been handed down to us, from his days, by one writer to another, and received as established rules, without being strictly examined.

Greater advantages would have accrued to society, if more attention had been paid to medical surgery.

Even Wiseman, who was perfectly capable of writing an original book, copied a farrago of medicines from Galen, or his followers, and adopted many errors, seemingly for no other reason than their having passed through the hands of the Greek, Arabic, and Latin writers unmolested. Because, whenever he had resolu-

But erroneous opinions have been copied from one writer to another.

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tion enough to shake off the fetters of authority, his own good sense, in many instances, flatly contradicts the very rules he had approved and laid down. And truly most of the books, which treat upon medical surgery in general, are collections of old materials, often hashed up to sanctify an heterogeneous practice, inadequate to the purpose for which it was intended.

And opinions, and rules recommended, which ought to have been rejected.

The baron Van Swieten, indeed, has collected together almost all that had been written upon the subject; but, not being a practical surgeon, he has received and recommended, amidst true medical science, many opinions and rules which ought to have been rejected. Nor has Mr. Samuel Sharpe, on the art of healing, in the introduction to his chirurgical treatise, shewn skill equal to his manner of describing operations. In the one instance he ransacked the works of every writer of eminence
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for information, and exhibited a clear, learned, and ingenious view of the subject in question: in the other, as will hereafter appear, he left convincing proofs that his inquiries were not equally assiduous, and that his attention was principally taken up with the use of the knife. Had his work been stored with true medico-chirurgical knowledge, he would have taught us in what manner obstinate ulcers, which are curable, might be cured.

Indeed the complaint made by Dr. Freind,* of the effects of external applications not being properly adjusted, still remains in full force; few right steps having yet been taken, to investigate their properties. The doctrine of inflammation too, its consequences, and cure, will admit of much improvement. For instance, all the books, to this day, tell us that we

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* Hist. of Physic. p. 56 & seq. vol. i.

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must first attempt discussion in every inflammation: ^{but if} ~~and~~ notwithstanding suppuration comes on, we must ^{then} forward it as much as possible: whereas nature herself proceeds with no such uncertainty; and if writers would have consulted her instead of books, they would long since have discarded this inconsistent doctrine, and have known when to have attempted discussion, and when to have let it alone*. The ancient doctrine of *laudable pus*, as it is called, being necessary to the cure of ulcers, is universally believed; yet upon inquiry, this opinion will be discovered to be ill founded †; and that even in many cases, attempts to procure laudable pus, are not only unnecessary, but injurious. The application too of digestives, composed of rosin, wax, and heating ingredients, to wounds, is still in general use; but cer-

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* See Treat. on Inflamm. chap. ii.

† See Ess. on Ulcers.

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tainly with great impropriety ; and there cannot be any doubt, but nature for the most part brings on digestion in them, in opposition to bad practice. Irritating dressings are very frequently applied to sores, already preternaturally irritable ; hence they are injurious and repugnant to common sense. Nor are the ointments commonly employed in ulcers, the most eligible ; wherefore, without mentioning other particulars, the necessity of pursuing the plan spoken of in the preface, is obvious.

By medical surgery we do not only mean external diseases, where both dressings and internal medicines are required, but also such complaints as are cured wholly by outward remedies ; because, in this instance, *the band and external medicines*, which subdue the disease by their medicinal virtues, are both employed at the same time. Accordingly Celsus, in his fifth book, places wounds, ulcers, in-

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flammation, erysipelas, gangrene, tumors, &c. in that branch of medicine, which opposes diseases by medical composition ; and very properly confines surgery to those diseases, where the principal intention is accomplished by the hand. Wherefore, if a line is to be drawn betwixt these two branches of the profession, surgery must be confined to its original designation, *manual operation*, such as making a wound, removing extraneous bodies, &c.

The practice of medicine immediately takes place, when the dressings are applied ; and for this reason, the dressing of wounds characterized the art of healing, long before surgery was distinguished by any particular name. The word *heal*, seems to have been originally understood to signify the healing of wounds : “ *I wound, and I heal* *.”

* Deuter. cap. xxxii. verse 39 about six hundred years before Homer, and one thousand before Hippocrates.

Those

Those, therefore, who were employed in this office, were called *healers*. Nor had the appellation of *Rauphe* among the Hebrews, *Ietros* among the Greeks, or *Medicus* among the Latins, any other meaning*. Wherefore Homer says †

Ἰηρὸς γὰρ ἀνὴρ πολλῶν ἀνταξίος ἀλλῶν
 ἔς τε κταμνεῖν, ἐπὶ τ' ἥπια φάρμακα πασσεῖν.

The Ietros is a man preferable to many others, in extracting arrows, and applying mild medicaments to the wound.

Nor can there be clearer limits of two branches of the same profession than this passage describes: extracting arrows being surgery, and the external application of remedies, physic ‡.

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* *Iatrike* is a technical term, still used to signify that branch which treats of the healing or curing diseases.

† Hom. lib. xi. v. 514.

‡ It is well known the word *physic* is not properly applicable to any of the branches of medicine; but, as it has been so long transferred from natural philosophy to that science, and is so well understood in this sense,

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An inquiry then into the medical part of surgery, leads us from the confined views of an operator, to a more extensive contemplation of nature and her works ; a true insight into nature being requisite, whenever medicines are used. For how is it possible to act with propriety without knowing their powers, and the state of the parts to which they are to be applied ? Nor can the end of using medicines be any way attained (unless by accident), without true medical knowledge. Surely they know very little of the matter, who can suppose the duty of a surgeon extends no farther, in the cure of any external disease, than the use of his knife or plaister, and a manual neatness of bandage !

it seemed proper to use it for the sake of distinction. We have also often used the word *medicine*, according to the modern acceptation, in opposition to the word surgery, though it properly signifies the whole art of healing.

Notwith-

Notwithstanding, therefore, that the moderns have called the treatment of wounds, ulcers, &c. surgery, contrary to the direction of Celsus *; it is still, and ever will be, strictly the medical branch; for it is medicine, and not surgery, which effects a cure. He therefore who undertakes the cure of external complaints, requires now many more qualifications than Celsus has enumerated †, as requisites necessary for a surgeon: because contrary to the practice of his days, what he called surgery, and the branch which cured by medicaments ‡, are united; and the first object of the surgeon is now to prevent operations by *medicaments*. Besides understanding anatomy and the animal

* See preface to his fifth book.

† Lib. vii. Preface.

‡ Later writers have distinguished these two branches into *chirurgery* and *chirurgical operations*, see Aquapendens. But surely this distinction is unclassical.

œconomy, he should be able to distinguish from the appearance of a wound, ulcer, tumor, &c. in what manner any of these diseases, may affect the whole body. If he is not well versed in the sedative and stimulating properties of applications, together with the different kinds of irritability, and its consequences; he will often be counteracting nature, instead of assisting her. Even by the improper use of precipitate, and similar applications, he may subject the patient to rigors and their effects, by increasing the irritability of the whole habit*; and bring on a train of misfortunes, which skill and a proper conduct would avoid. Hence his being conversant with the state of the body, the nature and action of medicines, and with what changes different kinds of medical combinations produce, is indispensable.

* See Essay on Inflammation.

Different

Different kinds of acrimony require different correctives. He must, therefore, be able to judge, what kind of alteration the matter in sores has undergone, when it degenerates from health ; whether it is owing to a diseased habit, or a local complaint ; he must understand in what manner these may affect each other, and what particular kind of remedies are necessary to restore the juices, &c. to a healthful state ; otherwise he will be deficient in his practice. Nor is it even possible for him to apply a bandage with propriety, unless he is thoroughly acquainted with the nature of obstruction, tension, relaxation, &c. In short, he should be acquainted with all a physician ought to know ; for if he cannot foretel, in general, what kind of effects will be produced upon an ulcer, &c. both by external and internal medicines, he will often meet interruption from an improper use of them. For instance

stance, if he does not know that purges increase the running of sores, he may often bring on a flux of humors by increasing irritability, when he intends to lessen it; and not less frequently occasion a degeneracy of a healing sore into a bad state, by an improper use of them. If he knows not from the appearance of a corrosive ulcer, whether mercury corrects or increases the disease, he may as often do irreparable injury as service; and if he cannot judge from the fleshy fibres, together with the discharge, what remedy is to be chosen as an antidote, he will be equally in the dark.

All this, I imagine, will be allowed me; and yet it seems very evident, that but little attention has been paid to these particulars. For is it not usual with surgeons to have one common digestive, which they use upon most occasions? And is not this like prescribing the same purge in all cases
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and constitutions? Would any one suppose, that the cure of an exceeding sensible sore had ever been in view, when the ointments in common use were devised? Is it possible to reflect without horror on the using yellow basilicon, softened with turpentine, or mixed with precipitate* to digest an ulcer, where the nerves are already preternaturally irritable? or, if we take a view of the consistence of the yellow basilicon of the shops, and of the materials of which it is made, may it not be imagined, that the state of the nerves and the action of topics had never been thought upon? The black basilicon is omitted in some dispensatories, notwithstanding it is certain, that pitch, made into an ointment, is a powerful sedative, and often more readily and effectually takes off preterna-

Want of attention to the effects of topics instanced.

* It is said, "that precipitate produces laudable pus," and is therefore useful; but this it effects by increasing heat, which we shall hereafter shew is not always necessary.

tural

tural irritability in sores than any other remedy; and may be used with happy effects, where no other application can so properly take place.

Modern writers have improved the plan of their predecessors, but without extending it far enough; and topics should often do more than lie easy upon the part.

However, in the surgeons books belonging to our hospitals, less irritating digestives than the yellow basilicon of the London dispensatory are prescribed; and the college at Edinburgh have improved this plan, by ordering their yellow basilicon to be made with a less quantity of heating ingredients, and a larger quantity of hog's lard, and oil, so as to give it a softer and a better consistence. It were to be wished, they had also directed an application for recent wounds; because, in these not only turpentine, but also rosin and wax are quite out of place. I have not any doubt but many surgeons apply still milder dressings than those in common use. The indiscriminate use of preparations of lead, must often have prevented

vented the application of irritating dressings; and there are surgeons who condemn those ointments, in which there is a large proportion of rosin or turpentine, or whatever irritates; and recommend emollient fomentations, poultices, and simple ointments in their stead.

There is some danger however, of running from turpentine and heating dressings, into the opposite extreme; and a fashion I see is arising, of leaving nature to accomplish her own work, under the application of inactive remedies, incapable of giving her assistance. No man is a greater advocate for simplicity in remedies, than I am; but *intention* should at the same time be pursued. Former practitioners certainly did right in employing different remedies for different intentions, as the cases might require; for though nature cures diseases, she must be assisted by art, and though avoiding painful applications

tions is a main object to which the surgeon should always attend, yet if we only have in view the choice of those remedies, which by their simplicity, and mild disposition, are incapable of giving pain, we extend our refinements too far ; as such practice is equally capable of doing mischief, with attempts to subdue diseases by storm. In the one instance, the efforts of nature are overpowered and stifled ; in the other, she is destitute of help : and I will venture to affirm, that the most simple and healthful ulcer, will frequently degenerate into an exceeding bad state, under the long-continued use of ointments made of wax and oil, poultices, or fomentations. For these things, by relaxing, occasion the vessels in the affected part, to be distended and overcharged ; the stagnating juices become acrid, irritate, and inflame, and I have seen the worst consequences under this treatment.

Poultices, fomentations, &c. in some cases occasion the degeneracy of an ulcer into a bad state

It

It is not always sufficient then, that remedies are mild, and lie soft and easy upon the part ; they should frequently have a power as we shall occasionally shew, of preventing inflammation, of easing pain, of removing obstruction, of correcting acrimony, and of taking off that kind of irritability which emollients increase. For these purposes the neutral salts, preparations of lead, the different kinds of native balsam (either in their natural state or divested of their heating property), warm gums, opium, the essential oils properly corrected, antiseptic liniments, the application of Peruvian bark, alum, cold water, spirit of wine, and a variety of other things, have the preference to each other under different circumstances ; and different combinations of these assistants produce distinct and necessary effects.

Nor have we any reason to believe, that the effects of internal medicines have been

D

properly

properly attended to, in the cure of external diseases, when we view the contradictory methods proposed in books, and see surgeons of the first eminence advising a salivation indiscriminately, when an ulcer is difficult of cure ; and purging once or twice a week to prevent it from breaking out again when healed ! Nevertheless, we do not point out this practice to decry the medical abilities of surgeons in general ; for in many places they act as physicians in ordinary, have frequently a medical education, and often display a respectable degree of physical knowledge in their writings.

The objections made to surgeons understanding the practice of physic recited.

But it is alleged, “ that an absolute neglect of a liberal education, most commonly happens to the generality of surgeons ; which is apt to induce quackery, or at least a narrowness of thinking about medical subjects, and an absence of that comprehensive, and universal knowledge,

INTRODUCTION.

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"ledge, as well as that ingenuous cast of
"temper, requisite to complete a phy-
"cian *:" and I am fearful there is too
much truth in the assertion. But, on the
other hand, as ornamental learning has
too frequently concealed ignorance in me-
dicine, it may be worth while to inquire,
how far it is necessary in the practice of
physic. An early and regular cultivation
of learning enlarges the mind, trains it
up to application, gives an active disposi-
tion to inquiry; and by a proficiency in
languages, other studies are with more
facility acquired: but it does not appear
from what may be observed, that these
acquirements are always accompanied with
an ingenuous cast of temper; though an
illiberal disposition is, I think, a certain
criterion of a narrow mind, and often of
a want of true professional knowledge.
However, there is not a stronger recom-

* Brocklesby's Med. Ob. p. 37.

The advantages of classical learning, and what share of it is sufficient for the study of physic.

mendation to a young practitioner, than ornamental learning, because few men only can judge of the medical abilities of a physician, but many of polite literature ; and they give a physician credit for skill in his own profession, if they find him possessed of this kind of science. It is, therefore, an ornament every one would wish to wear, on account of these advantages, had they time to procure it. But as medical surgeons are early employed in medicinal practice, they very seldom have an opportunity of acquiring classical erudition, equal to those who have an academical education*.

* Those intended to be educated in medical surgery, should not leave school till they are seventeen ; they should afterwards engage with a proper person to assist them in reading languages useful in their profession at leisure hours, for three or four years longer ; and when they begin to feel the pleasure of extending their literary knowledge, they will not be wanting in this pursuit.

It

It fortunately happens, however, for these gentlemen, that classical or polite literature, and the necessary qualifications for a good physician, are distinct and very different things. Baglivi asserts, that though logic, mathematics, the various idioms of languages, rhetoric, &c. are considerable ornaments to the profession, yet they are not more conducive to a circumstantial and exact history of diseases than the art of painting is to a musician. And, in support of this opinion, we might bring sufficient evidence to prove, that in proportion as physicians have interlarded their books with passages from the Greek and Latin poets, medical knowledge has been wanting ; because the mind has been employed in contemplating the beauties of those celebrated writers : and whoever takes a view of the impediments to the progress of medical knowledge, will often find them arise from studying science un-

connected with medicine. Accordingly Lord Bacon observes, " that physicians
 " have appeared to more advantage as
 " poets, antiquaries, critics, politicians,
 " divines, &c. than in their own profes-
 " sion ;" because in his time, the line of
 education led chiefly to these studies.

Instances
 in proof:

No one I believe will contend that Dr. Mead was a better physician than Sydenham, because he was a more polite scholar and a greater philosopher. The reason is obvious ; for Sydenham was not diverted by speculative reasoning, but learned by strict observation the nature and cure of diseases ; whereas, the other was often manifestly led away from the proper object by pursuits foreign to his profession. Therefore, though classical learning, &c. may be necessary to form an elegant writer, or a distinguished orator, or may enable a man to appear with lustre in conversation, yet if it is not immediately connected

ned with medical knowledge, much time may be lost in acquiring it, which ought to have been spent in other studies. Those who are not so highly polished, may acquire sufficient skill in the art of healing, if they have a competent share of understanding in the Greek and Latin languages, and attend proper medical schools, after they have learned the materia medica, the art of compounding medicaments, and their external and internal effects upon the human body. For the mind is put into action, and more enlarged, by the study of nature, than by any other kind of learning; and those who practice medical surgery, have nature constantly before their eyes.

The human body is a machine *sui generis*, that can only be explained by its own laws and principles*; the effect of medicines

The human body to be studied upon its own principles; the cure of diseases to be learned by clinical practice.

* As the study of physiology leads to hydraulics, optics, pneumatics, mechanics, &c. some advise the

And
therefore
surgeons,
without
great clas-
sical learn-
ing may
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sic.

cines and the cure of diseases are no ways to be learned but by clinical practice. Therefore, if the mind is enlarged by the study of the animal œconomy, and that part of nature immediately connect- ed with medicine, there cannot be any doubt but surgeons, of tolerable abilities, with the education spoken of, and the in- formation obtained in the nature and feat of diseases, by their office of opening mor- bid bodies, may acquire every kind of knowledge requisite to the study of me- dicine. And though they may not be pos- sessed of the art of persuading, or able to

study of these, previous to the study of the animal œco- nomy, by way of preparatory knowledge: but, when thus employed, they have always been defective, and frequently led into egregious error. After the office of the human body is learned upon its own principles, so much of the other sciences may indeed be inquired in- to, as seems to be connected with the subject: they will, in many instances, explain each other, care being taken that the foreign aid is always made subservient to the object in question.

distinguish

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distinguish themselves as great scholars, yet, as we shall presently shew, those brought up in medical surgery have, or may have, every advantage of information, in collecting the histories of diseases, and their cures, at present written, and of improving them by their own observation.

The chief mistake committed by medical surgeons, is leaving off their studies just when they have qualified themselves for pursuing them! Instead of considering the instructions they have received in medical schools, as an opening to the mind, and the beginning of inquiry only, they think themselves completely furnished, and are content with the little store of undigested knowledge they have gathered in a short time. But, without fresh supplies, this knowledge degenerates, and evinces the truth of the observation, that the mind, like the body, unless it is constantly nourished with proper food and exercise,

From whence a deficiency of knowledge in medical surgeons sometimes arises.

exercise, becomes feeble, and of very little use.

Perhaps some may read over the modern publications in medicine ; but reading without good digestion does very little service, and often harm : the digesting of any kind of learning consists in beginning at its origin, and tracing it to its present state ; for which purpose the ancients must be consulted, that the origin of practice may be known * ; a collection of facts, either from observation or experiment, must be made ; time and reflection exercised ; a regular chain of rational examination pursued ; and the result of inquiry collected and methodised : for unless this plan is adopted, erroneous opinions, crude concep-

Medico-chirurgical knowledge in what manner to be obtained.

* Suppose for instance, we were to meet with a new powder recommended for the cure of an Erysipelas : upon examining the history of this disease, we shall discover this practice to be the spawn of an ill grounded hypothesis, and a very injudicious treatment. See Erysipelas,

tions,

tions, and superficial knowledge, always appear in cases of difficulty.

But those who have not been trained up to thinking, by continual application, find it difficult, I imagine, to fix themselves down to consider things attentively; because few study their profession scientifically*: nevertheless, resolution and perseverance, in searching after knowledge, will certainly overcome this difficulty. When the mind is properly bent to a habit of thinking, it will not fly back; and assiduous inquiry will become a pleasure instead of pain. Sydenham †, a proper example, spent more of his time in thinking than in reading; nor have any men living more time upon their hands, or better conveniencies for this purpose, than

The disadvantages of the mind not being trained to thinking.

And in what manner a habit of thinking may be acquired.

* There are many who become exceeding good surgeons in common cases, without being able to extend their practice beyond a certain line: but if these gentlemen would view their profession upon a larger scale, they would be still more useful to society.

† Dedicat. Treat. on the Gout.

those

those who ride about to see their patients; having frequent opportunities of observing facts, and uninterrupted time to unravel them. Nor do I know any method, which so effectually makes a long journey easy as reflection; and surely it is negligence to the last degree, not to employ this time (which otherwise must hang heavy), to the advantage of mankind.

According to the opinion of some physicians, it is not necessary for surgeons to extend their knowledge farther than manual operation, and the application of dressings: for they imagine all diseases, both external and internal, fall properly under their cognizance; and assert an exclusive claim to the direction of all internal medicines. On this principle, an able practitioner, for whose memory I have the highest regard, in pointing out how far the province of the physician extends, says, "suppose a person to break his leg, and

Physicians claim the privilege of prescribing internal medicines in all cases.

“ and a fever and a gangrene to ensue ;
 “ the question occurs, whether the limb
 “ should be immediately amputated, or if
 “ the effects of certain remedies, given
 “ with a view to stop the progress of the
 “ gangrene, should be waited for till an-
 “ other day ? It is evidently the business
 “ of the physician in this case, to judge
 “ from the symptoms, from the habit of
 “ body of the patient, and other circum-
 “ stances of moment *, whether the delay
 “ is prudent or not.”

Now according to this doctrine, the operation and dressing the wound only, are left for the surgeon ; which is making a division, or fixing boundaries betwixt the two professions, that cannot any way be warranted : unless the physician takes upon himself the whole management of

The bound-
 aries be-
 twixt phy-
 sic and
 surgery
 improperly
 describ-
 ed by
 them, as
 instances
 evince.

* This expression carries with it the air of mystery, which I wish to see entirely banished from the practice of medicine.

the

the patient, after the operator has done his office. But should he not rather have justified the pretensions of the physician to taking the task upon himself, by shewing an acquaintance with the subject referred to? Those who understand the treatment of gangrenes, know that there is not any question in the case ; as it cannot be right to think of taking off a leg invaded with a grangrene, whether it be local or not, while any fever exists. Nor is it possible to judge properly, whether a disease is local or constitutional, whether spreading or stopped, from what cause it arises, or what kind of remedies are necessary, unless from the aspect and state of the diseased parts. It must be mere guess-work in the prescriber, if he does not gain information from the state of the ulcer : and surely they must be the best judges in this matter, who have the most frequent opportunities of information, by constant and attentive inspection.

By

By the same rule, physicians ought to determine, whether a person with a violent bruise upon the head, without a fracture, should be trepanned or not. But in a case of this kind related by Mr. Pott*, we see the physician did not comprehend its true nature, from not having seen much business of this kind; and not being able to form any opinion from the appearance of the skull and the parts when laid bare, over-ruled the only method, when proposed, which could possibly have given relief; and suffered the patient to die unassisted, from matter being confined within the skull, while he was prescribing internal remedies, from whence no possible good could be expected or derived †.

Again, according to the case stated, physicians ought to direct, whether an ulcer of long standing should be kept open or

* On Wounds of the Head, case 3.

† See a case in point, in injuries of the head, following.

healed

healed up: and yet it is impossible in many instances, for any man living to know whether the disease arises from a bad habit of body, or an affection in the part itself, till the vessels about the ulcer are rendered pervious by proper applications; and our steps, if we chuse to act with certainty, must be directed by the knowledge we gain by this proceeding. But, indeed, ulcers cannot be radically cured while the constitution remains bad. Instead of relieving, they for the most part are injurious to health. So far from draining off noxious humours, &c. they load the body with disease, by matter absorbed from them; occasion an hectic fever, erysipelata, and those abscesses and ulcers in the liver, and other parts of the viscera, with which they are sometimes accompanied. When we treat of chronical ulcers, we shall shew that they ought always to be cured as soon as they will admit of being healed.

But

But farther, suppose a man to have the misfortune of a compound fracture in his leg, and being seized with rigors, fever, and other unfavourable symptoms; some time after digestion has come on, a physician, unused to the dressing and local management of these accidents, is called in: in what manner is it possible for him to give proper assistance, when these symptoms take their rise from confined matter, from improper dressings, from splintered bones, or a bad position of the limb? It is true, he may level his prescriptions at the symptoms, but the cause must be removed by the skill of the surgeon; and, if he is deficient in knowledge, and depends upon help altogether from internal medicines, it is ten to one that the patient dies *secundum artem*, and there is an end of the matter.

A man was seized with an inflammation in the scrotum, without any symptoms of

E plethora,

plethora, but attended with pain, fever, and a large emphysema, as often happens. His physician ordered repeated bleeding, low diet, purging and cooling medicines to disperse the swelling; but a mortification came on, and the man died.

Now inflammation in the scrotum, attended with emphysema, very frequently terminates in a local sphacelus, owing seemingly to the slowness with which the blood moves through this appendage to the body; because the mortification stops, when it arrives at those parts where the blood circulates with more vigour. It has been observed to come on more particularly where large evacuations have been made; and might not this patient sink into the arms of death, in consequence of nervous energy being weakened by such treatment, in opposition to the best surgical conduct?

This division of the professions, therefore, cannot properly take place, unless
the

the physician is well skilled in the management of wounds, ulcers, &c. by practising the cure of external diseases assiduously, for a proper number of years. For, without taking these steps, it is impossible to judge rightly about the nature of the malady, and the impediments to health; as we cannot form a true notion of those things, with which we have not made ourselves familiar: "and when there is no certain knowledge of a thing, mere opinion cannot discover a sure remedy*." A general knowledge is all that can be pretended to, by those who have not practised surgery, which is commonly insufficient for the purpose. Indeed, practice upon general notions, in any branch of medicine, can only be excused in those, whose opportunities of experience have not furnished them with better knowledge. A perfect acquaintance with every

General knowledge insufficient for understanding surgery.

* Celsus.

circumstance in diseases, and in the method of curing them, distinguishes the physician; and I am fully persuaded, that a person who is well acquainted with the history of diseases, and the effects of those remedies, whose use is discovered by practice, will make a much better physician than one who prescribes theoretically, and indiscriminately orders medicines in the same class. Lord Bacon * observes, “The sense of hearing or seeing afar off, is full of mistaking; but within due distance of the object, errs not much. So it is with the understanding. For men use commonly to take a prospect of nature, as from some high turret, and to view her afar off, and are too much taken up with generalities; whereas, if they would vouchsafe to descend, and approach nearer to particulars, and more exactly and considerately look into

* Advan. Learning, lib. iv. cap. 2.

“ things

“ things themselves, there might be made
 “ a more true and profitable discovery
 “ and comprehension. The remedy of
 “ which error is, to go nearer to the ob-
 “ ject; and, therefore, there is no doubt,
 “ but if physicians, letting generalities go
 “ for a while, and suspending their assent
 “ thereto, would make their approaches
 “ to nature, they might become masters of
 “ that art whereof the poet speaks,

“ Et quoniam variant morbi, variabimus Artes,

“ Mille mali species, mille salutis erunt*.”

Nor is there any branch of the profession to which this can be more properly applied than medical surgery.

It is true, when an inflammatory, putrid, hectic, or leucophlegmatic diathesis, &c. accompanies an ulcer, the state of the patient, and necessary treatment, may in some measure be known without looking at the fore; yet the appearance of the

* Ovid R. A. C. 2.

Appearance of the local affection affords the surest criterions to go by,

Instances.

local affection will afford the surest criterion, and we should therefore descend to particulars. These cannot be known, without understanding the aspect of the diseased parts. It is impossible, for instance, to treat an external inflammation properly, unless by accident, without knowing the criteria, which distinguish whether it ought to be dispersed, or brought to suppuration; and these can only be understood by a familiar acquaintance with the different appearances in this disease. We shall hereafter shew*, that for want of proper attention to the knowledge that might be acquired by examining the affected part accurately, much mismanagement has arisen in the cure of this complaint. Suppose a person having lost much blood from a wound, looks pale, has swelled legs, is feeble, and has a weak pulse; it is no difficult

* See Treatise on Inflammation.

matter

matter to discover what kind of treatment is necessary ; but the appearance of the fibres in the fore will best determine whether diet or medicine, or both, should be used.

Indeed every ulcer is an index to the habit of body * ; we even see into the constitution, and from the naked fibres discover health or disease, the nature of disease, and the manner in which it is likely to terminate ; especially if assisted with well adjusted dressings.

Every ulcer an index to the habit.

Great information too, is often received by the touch, which is not to be learned by words. Even the smell of the matter discharged gives knowledge, and frequently foretels, when all other symptoms are deficient, a distant but approaching death, if not prevented. The effect of medicine is most obvious in sores, and a

* Witness the ulcer made by inoculation ; see Dimdale, p. 30. which we instance, because every body knows it.

proper number of trials under different circumstances, will determine in what kind of sore each of them are proper, and what is to be expected from them. Wherefore the appearance of the sore, and the symptoms attending it, will ever point out, to a careful observer, the exact state of the patient; will best direct what internal medicine is to be chosen, and whether a combination of medicines are necessary. People used to the cure of venereal complaints, will soon discover a venereal ulcer by its aspect; the method of cure to be pursued immediately follows; and just so it is with all other ulcers. Bark, steel, opium, elicampane, elm-bark, mercury, nitre, acids, lime-water, and a variety of other medicines, have been found serviceable in the cure of ulcers; but in what kind each of these are proper, words cannot describe. The look of the ulcer only can determine this point; and unless the know-

knowledge of distinguishing one ulcer from another, and the effects of different medicines upon them, be acquired by careful attention, all proceedings are conjectural and uncertain.

Besides, is not prescribing internal remedies only, in external complaints, stopping short; for may not an injudicious surgeon, frustrate every attempt of the physician? Suppose a gangrene to be occasioned by extreme inflammation, and the surgeon follows the indiscreet doctrine of using in all cases spirituous and heating applications; will he not increase the disease in opposition to every internal attempt to abate it? If the gangrene arises from acrimony in the fluids, accompanied with great irritability in the affected part, and the physician, along with other things, prescribes opium; may not the surgeon by the common practice of applying fomentations, and turpentine digestives, prevent his

Prescribing internal medicines only in external complaints, is stopping short; and prescribing external remedies without sufficient experience, injurious.

his intention taking place? For the one by increasing putrefaction, and the other by inviting a flux of humors to the part, will increase the disease. Or suppose a person to have an ulcer in his leg, with swelling, inflammation, and pain; and the surgeon, from an opinion that mild and soft applications are proper to relieve the patient, uses exceeding mild digestives, emollient poultices, fomentations, &c. I will venture to affirm, the fore and the health of the patient will often degenerate into an exceeding bad state, in opposition to all the physician can do. Nor, if the physician takes upon himself the whole management, without sufficient experience, is he likely to be more successful in the use of his applications? A farmer had a very large *scirrhus* on the side of his chin, which was become rough, unequal, of a muddy red colour, and a softness in some parts of it, pointed out that the acrid ichor

ichor underneath would soon corrode its way out ; wherefore he consulted a young physician of good abilities, in what manner to proceed. He advised him to take extract of hemlock twice a day, and ordered the surgeon, into whose hands the prescription might fall, to apply a hemlock poultice daily, till the tumor was upon the point of breaking : then to cut down into it with a knife, as deep as could be done with safety, and to apply a mild digestive, composed of *balsam of capivi*, and *unguent. e gum elemi*, as often as occasion required ! An apothecary who had the tendons of his thumb contracted, fell down upon the pavement, and putting his hand before him to save himself, lacerated the tendons, and made a small external wound. This was at first overlooked, but the adjacent parts shortly began to swell, and when his hand became painful, and brought on a fever, a physician was called in ;

in ; who seeing an erysipelas, ordered it to be dredged with flour *, and directed at one time neutral, and afterwards volatile salts to be taken inwardly : after which a mortification came upon the whole arm, and the patient died. Dr. Buchan, in his noted book, tells us, that after a wound is become very *superficial*, it must be dressed with the yellow basilicon of the London Dispensatory. Another physician tells us, that ointments are always injurious in sores, and ought to be intirely rejected from practice ! In every instance advice is most likely to be equally replete with mischief, where the prescriber has not properly instructed himself for the purpose. Even from Hoffman we might bring many instances in support of this assertion ; and yet I am persuaded, physicians have acted from a thorough conviction of doing

* See Erysipelas.

right ;

right; and, reflecting upon the enlarged understanding they generally possess, it is much to be lamented, that they have not made it a rule to learn by practice, the cure of external diseases. Whereas they have deceived themselves, by mistaking *ideal* for *practical* knowledge; for opinion without practice is nothing more. It unavoidably happens, that the cure of internal disorders is but a conjectural art; in consequence, physicians bred wholly to this department, are obliged often to reason from supposition*; and some of them are hence led to content themselves with forming opinions about the nature and cure of external disorders, which perhaps they but imperfectly, if ever, saw.

* Nevertheless, many sensible men, I observe, leave this field of uncertainty, and tread upon surer ground, by learning the history of diseases, and the method of curing them; and by this means our country possesses a considerable number of able physicians.

Indeed

Dividing
the same
disorder
into shares,
an abuse.

Indeed, I do not think a greater abuse has ever crept into the art of healing than dividing the cure of the same disorder into shares; it being not uncommon for the physician and surgeon to act, without design, in opposition to each other, and prevent either giving relief*. One of them at least ought to understand the whole of the matter; for learning the cure of a disorder only in part, carries on the face of it imperfection in practice, and must be destructive of those advantages to mankind, which might otherwise be expected.

Not
thought of
by the
Greeks:
their division
rational; in
what manner
made, and
might readily
be pursued.

The Greeks who first proposed dividing medicine into three parts, never thought of such a glaring absurdity as dividing the same disorder into shares, well knowing there is no studying diseases by halves. Their division was rational, being in practice and not in science; it is the only division which can take place, with any sort

* See Examples.

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of propriety, and would intirely put an end to those inconveniencies, which must arise from the phyfician and furgeon having different interests in view. And as it has either been mifunderstood or misrepresented, we will venture to explain the meaning of Celsus in this particular.

A modern writer has said, "There was anciently, as Celsus informs us, a division of medicine into three parts; the first regarded the regulation of diet; the second, prescription of medicine; the third, manual operation. The two first, though distinguished in theory, were always united in practice, the last has been practised separately". This account no way agrees with what that celebrated writer has said; and one would imagine those who give it, had never read his book, the division he speaks of being of a very different kind.

After

After shewing, that medicine had been carried on, down to the time of Herophilus and Erasistratus, in an union of all its branches, he says, “ during this period
 “ medicine was divided into three parts,
 “ one cured by diet, another by *medica-*
 “ *ments*, a third by manual operation.
 “ The first part was named in Greek
 “ *Διαιτητική*, the second *φαρμακευτική*, the
 “ third *χειρουργική*, *each deriving its appel-*
 “ *lation from the principal method taken to*
 “ *effect a cure*; therefore, as that method
 “ which cures *chiefly* by diet, sometimes
 “ admits medicaments, so that which
 “ *chiefly* opposes the disease by medica-
 “ ments, ought also to attend to diet *.”

The Greek
division
explained.

From whence it is very evident, that it was a separation in the different branches of medicine, and not in prescribing diet and medicines, which was intended: for

* This reading is taken from his general preface, and from the preface to his fifth book.

though

though they had different appellations, each sect had the whole management in those disorders which fell properly under their care. Accordingly, if we take a view of the several chapters in which each of these subjects are treated, we shall discover that one set of practitioners undertook the cure of internal, and the other of external disorders; and whether they were of that class which cured *principally* by diet, or *principally* by medicaments; yet each party took in every necessary aid for his purpose, both from diet and medicines. The first four books evince, that the dietetic branch were to have the entire management of all disorders, which confined themselves to the inward parts of the body, and originated internally*. The fifth and sixth books shew, that the Pharmacutists had the whole direction of diet

* Areteus and Celsus Aurelianus confined themselves to this line.

and medicines in all the external disorders (which now belong to surgery), where the principal part was not conducted by the hand, whether arising from an external or an internal cause, being the sect which are said to have prescribed medicines; and surgeons cured the wounds they had made, both by diet and medicine. Those who cured internal, and those who cured external disorders, without manual operation, had the appellation of *Ietroi* among the Greeks, and *Medici* among the Latins; nor was it intended that they should interfere with each other in their different departments. But, notwithstanding this division has not been adhered to, each party invading the province of the other, yet it still exists, and might easily be adopted with advantage to the community, under the appellations of physic, medical surgery, and surgery*: the apothe-

* We have used the word Surgery, in this place, in its primitive sense.

cary being the medical instrument-maker only, to the whole.

Parey, Aquapendens, and Wiseman's books, among many others, are exactly upon the plan prescribed by the Greeks, and followed by Celsus, as a proper model for the province of those who practice the cure of external diseases; and though it is true Parey and Wiseman mention physicians, who did not practise surgery, sometimes interfering; yet when we examine how this originally happened, we shall find it began in a manner no ways favourable to medical science. For, unfortunately, the topical treatment of external diseases fell into the hands of Barbers, who were perfectly ignorant of *the* use of internal medicines; of course, when these were necessary, they were prescribed, by what may still properly be called the dietetic branch, who had never practised what we now improperly call surgery.

Hence *a new or second division* in medicine took place, though perfectly unnatural, because it most certainly retards the progress of science.

Nevertheless, there were at all times regular practitioners, educated in the whole treatment of external maladies, who complained loudly of the ignorance of the barbers; and of the ill-treatment the patient commonly underwent, from their being unacquainted with what belonged to this part of the art of healing. Hildanus, Marchettis, and many others, give us abundance of notable instances of this sort. Hoffman describes the German surgeons* as in a wretched state of ignorance; nor do the statutes of the College of Physicians, in the last century, exhibit a more pleasing picture. In the form of consulting, they say, "Because Apothecaries and Surgeons, but especially the surgeons, often

* Med. Polit. cap. 2.

"bring

“ bring the urine of sick people to physicians, and desire they would inspect it, and prescribe for their (surgeons) patients, managing under this pretence of consultation, the whole cure at their pleasure, and appropriate the gain to themselves, while the physician gets nothing more than the mean and hungry reward that arises from viewing the contents of the urinal: we ordain that no physician shall give advice to such like impostures, without seeing the patient.”

Hence it seems impossible to advance this part of the art, without pursuing the Greek plan; it being an idle dream to suppose, that a proper qualification for practice can be acquired by any other mode of studying the nature and cure of external diseases. Besides, if the surgeon can be indifferent about the effects of internal remedies, he is dead to the interest of his patient, and destitute of necessary ambi-

tion, without which he can never rise in his profession. And some of the effects of the second division are these: an unskilful surgeon may conceal his ignorance by calling in a physician unacquainted with the topical management of external disorders, as he is sure not to be excelled in healing the malady; and if the patient dies, he is screened from reproach. It may be observed, in those places, where the dressing of sores, and prescribing internal remedies, are considered as distinct offices, the surgeons exert themselves in those diseases chiefly where the principal part is accomplished by the hand, where very little or no assistance from medicine is necessary; and where they must of course have the whole credit of the cure. But when they are concerned with physicians in the management of chronic ulcers, &c. they only attend to one part of the disease, and under such circumstances medical surgery

furgery cannot do otherwise than degenerate.

However, in those places where, from an improper line being drawn, surgeons do not inform themselves in the manner of treating internal complaints, physicians must be consulted, wherever internal remedies are required. And it must also be confessed that surgery is frequently practised by men of confined abilities. Others, though they are not wanting in good understanding, and have had a medical education, cannot confine themselves to study, and, therefore, remain content with what they have heard in attending lectures, &c. and think it fully sufficient if they can support their practice by a theory learned in the schools; while too many are only anxious about performing operations, which they think the summit of perfection, and the high road to fame. Wherefore, supervisors, or directors, in medical

F 4

surgery

Surgeons,
what sort
unqualified.

Supervisors often
necessary.

surgery will often be necessary ; and those who intend to assume this character, should, in my opinion, by a proper education, both in medicine and surgery, qualify themselves duly for the purpose *.

Who should qualify themselves properly, that the physician and surgeon may be both in the same man.

If they intend to confine their practice to the cure of external diseases chiefly, they should nevertheless follow the example of

* After being with a regular bred medical surgeon for at least five years, and storing the mind with plain, simple facts, he may in about four years more finish his education regularly, and take a degree: remembering the caution of Celsus, of rejecting from practice all reasoning he meets with in the schools, not founded upon evident facts. Nor should he be less careful about suffering the art of talking, or theorising about diseases, to seduce him from an attention to practice; as has too frequently happened. I wish to see the study of medicine begin where it generally ends; because, those who begin in theory, too frequently let it guide them all the days of their life, continually fluctuating in practice, as new theories are manufactured and dispersed abroad. Whereas those who are at first trained up in wholly observing facts, have fixed principles to go upon, are steady in practice, and always judge of new discoveries by the resemblance they bear to truth.

Hildanus,

Hildanus, Vesalius, Hieronymus, Fabricius ab Aquapendente, Fallopius, Scultetus, Nuck, and many other eminent men, in uniting the title of Doctor in medicine to that of Surgeon; in order that whenever an internal disease terminates in a manner that requires external assistance, to go hand in hand with other physicians, who may have been concerned. For though no man of sense will refuse consulting with men of abilities and learning in their profession, whether they have a degree or not, yet a line must be drawn as a barrier against the unseasonable intrusion of those, from whom no advantage in consultation can arise. Accordingly we have the pleasure of seeing, that a medico-chirurgical society is instituted at Edinburgh, of which, several of those who graduate are members; who will undoubtedly remember, that surgery is learned, like all other arts, by experience; and that neither

ther a husbandman nor a pilot are qualified in those professions by reasoning, but by practice. Otherwise, we may say of surgery as Pliny said of physic, that the study has degenerated into chattering* : and I am sorry to see some medico-chirurgical books lately made, that cannot possibly teach any other art. But it is evident to common sense, that in the cure of external diseases, the surgeon and physician ought to be both in the same man. By this plan, the physician educated in surgery, will be able to direct the whole of the proceedings. When he meets with other physicians, who do not practise surgery, they will both be upon a footing, their proceedings must be a joint act, of course the cure or want of success cannot be ascribed to either alone. They will be equally interested in the event, a mutual

The advantages
of this
plan.

* Ad verba garrulitatemque descendente. Lib. xxvi. cap. 2.

exertion

exertion of their abilities will be a natural consequence, and a cordial union, which it is hoped would always take place, might be of the utmost advantage to the patient.

It must at the same time be confessed, that I have observed an inconvenience in surgeons commencing doctors; as they are apt to leave off the practice of surgery, to rise in dignity*, and thus give up the advantages which might accrue from the external and internal treatment being conducted by the same person. Without practice knowledge will degenerate, and they may be mistaken in their expectations; for, by changing the ground upon which they have stood, perhaps, with credit, they will meet with very few oppor-

But there are inconveniences in surgeons commencing doctors, unless they still adhere to the practice of surgery.

* The number of cases requiring assistance is much greater in internal than external complaints, which may be another reason for quitting surgery; but the number of medico-chirurgical physicians would only be in proportion.

tunities

tunities of shewing their medical abilities. It is hard to raise a reputation by *practice* in that branch of medicine, where it is difficult to say when remedies do service. The setting out at first as a physician, confers the credit of the character, whether a man understands the practice of medicine or not; but future reputation does not, for the most part, depend upon his knowledge in the art of healing, but upon accident; or, as Dr. Gregory asserts, “on the
“various arts of flattery and insinuation;
“and the arts of deceiving mankind into
“an high opinion of their understand-
“ing*.” On the contrary, the cure of

* The reason he very properly assigns for this conduct is, that mankind in general cannot judge properly of the medical abilities of a physician; and that he is therefore obliged to gain their confidence and esteem, by ways suited to their understanding. But, to remove this disgrace to the profession, the doctor proposes that medicine should make part of the education of every gentleman: and I sincerely wish any scheme might take place, that art could no longer prevail over knowledge.

external

external disorders is evident to the senses. The study proceeds upon facts instead of conjecture; superior abilities will always manifest themselves without artifice, and he who distinguishes himself by a thorough knowledge in so useful a branch of the profession, will command attention and respect, equal to any department in medicine. Wherefore, they who quit surgery to gain imaginary dignity, lessen themselves and their services to mankind.

Now physicians themselves allow, that the whole cure of external diseases ought to be in the same person, by asserting, that it is a reflection upon them to be ignorant of external diseases; and by the College of Physicians formerly having a bye-law, in which they insisted that every one of their members should diligently attend the chirurgical lecture for the space of five years. I imagine there are few or no physicians,

Physicians allow that the whole cure of external disorders ought to be in the same man.

ficians, who have not attended chirurgical lectures, read and thought upon the subject, and taken a cursory view of diseases belonging to surgery ; yet these are not sufficient for the purpose. Instead of cursory views, it must be practically learned day by day, by as exact investigations as possible : and though a man may have attained the art of reading ingenious lectures in surgery, yet if he has never practised it, he will know very little of the matter. In support of this assertion, we might give many instances from physicians, who, not being guided by practice, have copied into the books they have thought proper to write on surgery, both good and bad treatment, without distinction. The College of Physicians, no doubt, thought they did right in publishing in their Dispensatory, ointments, cataplasms, plasters, &c as remedies for the surgeon
to

to work with * ; yet they are most of them tools ill calculated for the purpose for which they were intended, or that cannot be used without doing mischief ; and fairly evince, that without practice no good rules can be laid down.

There is something in all diseases which is not to be learned by words or thinking, the eye, or touch, being the chief director in our pursuit. In internal disorders, every body knows there is a judgment to be formed upon sight of the patient, which words cannot describe. For instance, in external disorders, were a cancer and a fungus, arising from a foul jaw-bone, to be described upon paper ; the same set of words must often be used for both of them,

But this is not to be accomplished without practice.

* This seems to have been owing to precedent. The first Dispensatories were compiled from the writings of those Greek physicians, who practised both physic and surgery ; and the same form has ever since been continued, though the means for acquiring knowledge for the purpose has been long laid aside.

and

and yet there is something in their looks, which distinguishes them from each other and points out, to experienced and keen-sighted men, that one of them will admit of a cure. Nor is it possible for any method, but the *tactus eruditus* to distinguish the difference betwixt a *scirrhus*, and an induration in the breast; and so on, in a multiplicity of other diseases we might enumerate. Indeed, I believe it is an incontrovertible truth, that all the real knowledge existing, is derived from experience; and, that without practical experience true knowledge cannot be obtained. Hearing and reading, unless extended into practice, which converts them into real knowledge, only teach men the art of talking and writing ingeniously; but talking about diseases, and knowing how to cure them, are distinct and very different things. Students in medicine must be allowed to be the greatest of physicians, if reasoning

For all
real know-
ledge is
derived
from ex-
perience.

ing could make them so; whereas they have abundance of words, and very little skill in the art of healing. Nor is it possible to form a true judgment on the medical abilities of any man, till we see him apply remedies as exigencies require; for there are many who cannot communicate their ideas, and yet soon convince us, that they know in what manner to proceed upon being set to work; *et vice versa*.

Eloquence, or other arts of deceiving, which have often been successful in some branches of medicine, will never gain credit in the management of those diseases, where the nature and cure are evident to the senses. Something substantial and convincing must be done; for without a cure is obtained, an obstinate ulcer (for instance) will remain a mark of unskilfulness in the prescriber, unless the blame falls upon the dresser, or the physician succeeds in persuading the patient that he ought not to

Why talking will not gain substantial credit in the cure of external disease.

G

think

We should
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fy our-
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think of being cured for fear of being killed. Or should he escape censure from having acquired the character of a man of great learning, skill, and sagacity, in the cure of internal disorders; yet, however this may prevail with other people, he ought not to suffer it to deceive himself, by supposing that he understands the nature of complaints he has not properly attended to. Nor is it sufficient that physicians and surgeons of eminence, who have only studied external diseases in part, from unconnected meetings*, countenance each other and escape censure in an unsuccessful case with impunity, if a thorough

* Hoffman indeed, laid it down as a rule, Med. Polit. cap. 2. regul. iii. that the physician should not enter into too much familiarity with the surgeon. But unless the plan I have advised is pursued, surely no men living should be more open to each other in communicating their intentions, that they may both proceed upon the same plan; for without there is a perfect union in opinion, the patient is most likely to be a sufferer, where each takes only the management of part of the disease.

acquaint-

acquaintance with the subject might have produced a more favourable termination of the disease. We must, therefore, repeat what has been said in other words, that every physician, who prescribes in external disorders, ought to be a good surgeon; and that every surgeon ought to be a good physician; that the nature of external diseases can only be learned by constantly seeing, and examining them thoroughly; and that the method of cure will not be understood but by curing them, and by strictly observing the alterations which happen from disease, or nature, and the effects of medicine; that we may determine how far particular remedies are assisting in the cure. The experience of other men will not supply the want of our own observation; for even facts must be tried, and pass through our own thoughts and experience, before they can be of much

The methods of acquiring proper knowledge in surgical cases enumerated.

use to us. Sir William Temple observes*,
“ though a man may grow learned by
“ other men’s thoughts, yet it is from his
“ own thoughts as well as experience that
“ he will grow wise.”

Should physicians think the knowledge of dressing ulcers unnecessary, they will find themselves mistaken; it leads to a more familiar acquaintance with the disease, and the very manner of dressing with the same remedy will often either forward or prevent a cure. For instance, in many habits the epulotic cerate, though properly prepared, spread thick, continues the running of sores; whereas when it is spread thin upon lint, and suffered to dry before it is used, it frequently heals them. Digestives are often necessary to promote cicatrization, but sometimes their being spread thick, and sometimes thin, is required; otherwise the cure will not ad-

* On Health and Long Life, p. 267.

vance. Different degrees of pressure produce different effects ; one kind prevents inflammation, another occasions it ; one promotes digestion, another suppresses it ; one occasions pain, another eases it, &c. If a roller is not properly wrapped up, it cannot be well applied, and the patient will receive no benefit where the cure depends on bandage. Nor are innumerable other instances wanting to shew, that whatever remedies are beneficial in sores, become so by a right use of them. If a physician cannot point out where the fault lies, when the cure does not advance, he may prescribe to eternity without success, if his assistant happens not to be an adept in dressing of sores, and has not attended to the different effects that may be produced by the same remedy differently applied : unless, indeed, in those cases which sometimes happen, where nature will effect

The manner of dressing under different circumstances necessary to be known to the physician who undertakes to prescribe in external diseases.

a cure, in opposition to every blunder that can be committed !

Some physicians value themselves upon their ignorance in surgery, on account of their dignity ; but upon mistaken notions.

Hoffman in one of his rules says, “ A physician ought not to perform any common operation ; such as making a future, applying a plaister, &c. because it is beneath his dignity.” It is said some modern physicians value themselves upon their ignorance in surgery, for the same reasons. But can such consummate pride support the dignity of any profession ? Did Hippocrates think these offices beneath his dignity, which was in knowledge, and not in outward pomp ; and does not the dignity of a physician consist in humanity, honesty, and a thorough acquaintance with the science he professes* ? Surely, affording relief to the distressed by any means, is an act of humanity ; and in what manner acts of humanity can lessen

* Hippocrates says, he ought to be an honest, diligent, ingenuous man.

a man's

a man's dignity, I am at a loss to conceive: Celsus esteemed him most, whose knowledge was most extensive. I am of opinion with Dr. Gregory, that it is ridiculous in a physician to think any attentions, or any duties, below his dignity, which can contribute to the relief of his patient. I am persuaded this mistaken pride can only be an air of pomposity in some few men, who wish to appear great, with confessedly limited understandings.

Besides, is not medical surgery equally noble with any other branch of medicine, and more certainly useful as its effects are more evident? In internal diseases it is often hard to say, whether the disease is cured by medicine or by nature, in opposition to bad practice. But in external diseases the effects of proper treatment are obvious, and, being easily understood, have not been so greatly admired as those things which are covered with darkness. Never-

Surgery
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medicine,
and evi-
dently
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Why not
in equal
esteem
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treatment
of obscure
diseases.

A friendly hand-
maid to
nature,
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theless, the method of curing external diseases, even by external remedies, is a friendly hand-maid to nature. It does not derogate from the art itself, that those advantages have not been derived from it that might have been ; or, that it has been practised by barbers and illiterate men. Every branch of medicine has had the same misfortune, of falling into the hands of those who did not understand it.

Physicians allow
that surgery is a
master-
key to the
study of
physic.

Physicians of the first eminence agree, that the knowledge and cure of external diseases is a master-key to the study and practice of medicine. Boerhaave, and his very learned commentator the Baron Van Swieten*, endeavoured to inculcate this opinion in the minds of their pupils, and taught what belonged to external maladies as a clue to medical knowledge, not to be obtained in any other department of medicine ; it being the best method of learning,

* Com. sec. 144.

to pass from those things which are easy to comprehend, to the more difficult: and external disorders being most obvious to the senses, and most readily understood, easily lead us to a knowledge of the same kind of diseases, when seated inwardly.

“ We can much more evidently understand
“ external inflammations, and their various
“ ways of terminating, than those seated
“ internally. How much light we receive
“ about the nature of obscure diseases of
“ the head, from a knowledge of wounds
“ of that part! And the same is true of
“ many other complaints.” “ We may
“ justly lay it down (says he) as an axiom,
“ that internal diseases exactly correspond
“ with such as are external; *and that no-*
“ *thing regular or just can either be per-*
“ *formed or taught in the practice of physic,*
“ *unless the external diseases appertaining to*
“ *surgery be first thoroughly considered.”*

The Baron has not omitted to lay before

us

us proper analogies on this occasion*; and of the same opinion are numberless able physicians of our own country†.

Hippocrates of this opinion.

Hippocrates formed many of his notions, and much of his practice, in the cure of internal diseases, from what he observed in those seated externally. In particular, he rationally taught the nature and cure of pleurifies, peripneumonies, and the like, from wounds of the breast. When fores were over-loaded with a flux of humours, purges were given to unload the habit, and make a derivation from the affected part; and the effects in these cases naturally extended the use of such remedies in every kind of inflammation and plethora. Is not the analogy of external and internal diseases obvious? A man is seized with violent pain in the abdomen, accompanied with a hard full pulse, a fever, costive-

* Sect. 557.

† See Dr. Barry, Dr. Miller, &c.

ness,

ness, &c. whence we conclude, that the affected parts are inflamed. If the pain gradually decreases, a recovery is foretold; but if the patient enjoys sudden ease with a weak low pulse, we judge that a mortification is come on, and that death is at hand: and whence do we learn this knowledge, but from external inflammation, and the symptoms attending its different terminations? A local inflammation is attended, more or less with a fever, and a quick pulse. In a *tetanus** from an uninflamed sore, the pulse is quiet and no fever appears; which leads us to distinguish, upon certain grounds, betwixt inflammatory and spasmodic diseases, when seated inwardly; and what remedies are to be chosen for the cure. If a man is seized with a pain in his stomach or bowels, has a quick pulse and a fever, we immediately know, upon touching the patient, that his disease arises

Instances.

* See Diff. on the Symp. of the Nerves.

from

from inflammation, and that the antiphlogistic treatment, in a greater or less degree, in proportion to the symptoms, must be pursued. On the contrary, if his skin is temperate, and no symptoms of fever appear, it is clear the pain is owing to flatulency, spasm, or some indolent obstruction unattended with inflammation* ; accordingly antispasmodics, warm purges, the essential oils, or deobstruents, &c. are given with success. The same may be said of pain in the side : and in a fit of the gravel we can never proceed regularly, unless we attend to these particulars. If the vomiting, nervous colic, and pain in the back and groin, are accompanied with a fever, inflammation is present, and bleeding, with the cooling plan, take place ; but if the pulse is quiet and no fever appears, tincture of sena, joined with spirit of nitre, opium, and marshmallow tea, tur-

* See Treatise on Inflam. in general.

pentine clysters, and such kind of remedies afford more immediate relief. Lacerated wounds of the brain are often, if not always, accompanied with a soft, open, unaffected pulse; whereas when the *dura* and *pia mater* are inflamed in a state of tension, a fever and a quick ferrated pulse are the consequence. We may conclude from hence, that in deep-seated pains in the head, and in comatous fevers with a good pulse, attended with deliriousness, rapid loss of appetite and strength, sleeplessness, quickness of breathing, and thirst; the disease is seated in the substance of the brain: and that the membranes of the brain are inflamed when the pulse is ferrated and quick, and the symptoms of *phrenitis* appear. In injuries of the brain, have we not *ocular demonstration*, that an *hemiplegia* on the opposite side is a consequence. The effect of long-continued inflammation upon the outward
mem-

I N T R O D U C T I O N.

membranes, the surgeon *sees* to be unavoidable suppuration ; which points out the necessity of a speedy removal of the disease when the inward membranes are inflamed, to avoid this consequence, which in such a situation will often prove fatal. In inflammation of the lungs and pleura, where the disease often terminates by expectoration, does not the practice of surgery clearly instruct when to use evacuations, and when to let them alone ? While a wound is in a state of inflammation, bleeding, antiphlogistics, cooling purges, and the like, are proper ; but when digestion comes on, and we see the inflammation is abated, such remedies are no longer necessary : and does not this hold good in the inward disorders of which we were speaking ? For antiphlogistics are proper till expectoration comes on ; they then become improper, and * inward di-

* We do not mean by digestives the common heating remedies ; but those things, which by an emollient quality promote a discharge.

gestives

gestives finish the cure. When the abdominal viscera are inflamed, is not the cure accomplished by the very same means which remove external inflammation by discussion? It has long been known that the matter in abscesses is sometimes suddenly taken up by the absorbents, and carried safely out of the body; which has induced surgeons *, under particular circumstances, to promote this absorption by brisk purging in ripe abscesses, and to cure their patient without an ensuing ulcer. Does not the success of this practice point out that there may be some hope of relieving abscesses in the head, thorax, or abdomen, by this treatment, where an operation for various reasons cannot sometimes take place?

In short, the same kind of diseases happen to the inside as to the outside of the body. It is allowed a *phrenitis* is a phleg-

The same kind of diseases happen to the inside as the outside of the body.

* Dease's Surgery.

mon

mon or erysipelas of the brain, or its membranes ; a pleurisy, a phlegmon or erysipelas of the pleura ; and a peripneumony, a phlegmon or erysipelas of the lungs. When the liver and spleen, stomach or intestines, &c. are inflamed, they must be affected in the same manner ; and though some peculiar symptoms may arise from the structure and situation of these different parts, yet the inflammation in each of them requires similar treatment with external inflammation ; and, though it affects different organs, ought to be considered as one kind of disease.

Scirrhi of the liver and spleen, or other internal glands, are of the same nature with scirrhi in glands seated externally ; inward ulcers are of the same kind with external ulcers : and how is it possible to treat the former with propriety, unless we are previously instructed in the nature of the latter ? A phthisis arises from an
ulcer

ulcer in the lungs, and this ulcer from a tubercle. It is well known that these tubercles, and the swelled glands in the mesentery, which occasion an atrophy, are of the same nature with those formed in the necks of scrophulous people : and surely by seeing the progress of the external disease, and what effect medicines produce in the method of cure, we must be fully instructed in its consequences when seated inwardly. For it is not material whether matter is absorbed from an external, or internal ulcer ; as a colliquative or hectic fever, according to its nature and degree of virulence, will be the consequence : and in every ulcer, the same kind of reasoning holds good. Nor is the analogy of external and internal disorders confined to local complaints ; for we have better information in regard to the nature and action of contagious *miasmata* from external disorders, than is to be gathered from any other quarter.

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I N T R O D U C T I O N.

In inoculation we are led to conclude, that contagious *miasmata* are equally subtile with the scent of a rose; because we discover, that even a variolous atom produces the small-pox. By the most active kind of putrid matter being absorbed from sores, we are taught what effects putrid *miasmata* will produce in the body, in whatever manner they are received; and what methods are most likely to correct their mischievous effects. The ichor arising from corrupted blood, or putrid flesh, is a most active poison. We see it corrode and inflame the parts with which it comes in contact; and being absorbed, it irritates the nerves, brings on a fever, weakens, or destroys nervous energy, dissolves the crasis of the blood, and, if not prevented, a total corruption follows, as the progress of gun-shot and other contused wounds has so often evinced. The cure of these accidents has surely thrown great light on the
use

use of antiseptics in putrid fevers; and by supposing putrid matter to be more active and volatile than that described, we shall not be at a loss to account for the gaol-fever, and other distempers of the same kind.

A poisoned arrow evinces how small a quantity of matter will have an immediate and deadly influence, by acting upon the nerves. And from this extreme sedative power a field of inquiry presents itself, in which we may be led to a curious investigation of the power of different sedatives. The *miasmata* occasioning the fore-throat fever, which lately prevailed in this place*, apparently destroyed the patient by their sedative and deleterious property, without one symptom of putridity attending: and I have several times met with a fever without either efflorescence, or fore-throat, in which those who died had every symp-

* See Treatise on Erysipelas.

tom of nervous energy being destroyed ; and those who recovered were enabled by wine, or other cordials, to struggle through the disease. Sores also teach the difference betwixt inflammatory and spasmodic irritability ; and set us upon proper ground to see in their right light the whole train of nervous diseases, and their method of cure. Air, diet, water, and situation, manifest their effects remarkably in sores ; and, if we except mental diseases, there are none that I know of, which may not be illustrated by one part of medical surgery or other : and an ulcer even discovers to us, how far these will affect the body. It has long been the opinion, to the destruction of thousands, that a fever is an effort of nature ; and so long as we reason from conjecture, much may be said in favour of this axiom, cunningly invented by Asclepiades, to support a bad practice. But surgery discovers its fallacy ; for supposing
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an ulcer to be in the most healthful state, discharging good matter, and filled with ruddy granulations of new flesh; if a fever by any accident invades the patient, the ulcer becomes dry, or discharges a gleet instead of good matter; the fibres become pale and glossy, and evince that every effort of nature is suppressed while the fever exists. Nor can any thing be clearer than that fever interrupts nature, because she resumes her office of restoring the ulcer to a healthful state as soon as it disappears.

Dr. Freind* says, "If the effects of outward applications were properly adjusted and explained, nothing would give greater light into the virtues and operations of internal medicines:" and this, experience might daily evince. We have mentioned that a balsam composed of pitch, &c. has a powerful sedative pro-

The effects of outward applications throw great light upon the use of internal medicines.

* Hist. of Med. vol. i. p. 73.

perty in particular sores ; and a man, troubled with a violent nervous asthma, received the greatest relief by accidentally taking some of this remedy. Knowing its power by external application, we afterwards recommended its use occasionally, and, in consequence, the man enjoyed more ease for several years, during the remainder of his life, than he had for a long time experienced. Hence we see in what cases, and in what manner tar-water proved serviceable ; but as the internal use of it could not so clearly point out its mode of action, it was indiscriminately used in all sorts of disorders : the consequence was, that from its frequent failure of success, it sunk into disuse. Myrrh (besides its antiseptic property) has a power of allaying irritability, when sprinkled in sores unattended with inflammation ; and does not this point out to us how it comes to pass, that nervous coughs, under the same predicament, are
so

fo certainly and effectually cured or relieved by it? Balsam of Peru is a sedative in sores unattended with heat or inflammation; but where heat or inflammation prevails, it occasions violent pain: if, therefore, it was given in an inflammation of the bowels, would not it produce the same effect? Whereas in the nervous colic, or spasms of the viscera, it is often attended with the most desirable success. Essential oils take off irritability in sores under the same predicament; and, in all likelihood, produce their good effects by this means upon the nerves of the *primæ viæ*, when mixed with purges, or when taken inwardly for pains in the stomach and bowels, nervous or chronic rheumatism, &c. Oil of turpentine has often been known to ease pain unattended with inflammation, when outwardly applied; and it is probably owing to this sedative power, that turpentine clysters give such immediate re-

lief in fits of the gravel, where no inflammatory symptoms appear; whereas all sedatives having an irritating property, it increases the inflammation of wounds: and would it not in like manner increase nephritic symptoms, when accompanied with heat, taken inwardly? Rhubarb gently increases the flux in sores, cleanses them, and renders them less irritable; and are not its salutary effects in disorders of the bowels owing to these properties? Bark, applied to ulcers, corrects putrid acrimony, strengthens weakened fibres, and restores them to natural sensation when feeling is unnaturally acute: and it is probably owing to all, or some of these qualities, that so many good effects are experienced from its use. It is well known, the *siphylis* is corrected in sores by mercury; and is not the same remedy an antidote to the venereal virus when taken inwardly?

In this manner we might go on through the whole materia medica, shewing that the outward effects of remedies lead to the internal use of them : and the fleshy fibres being exposed, frequently discover to us what effects medicines produce in the body. Suppose an ulcer to be in a healthy healing state, and an ounce of salts to be given : inflammation about the sore soon follows, the discharge, which becomes thinner or more watery, is increased, and by looking upon the fibres with a glass we see they are in a crude and ragged state. From this instance we learn, that the effects of such kind of purges are not confined to the intestines, to making an evacuation of serum, or to the occasioning a higher excitement of nervous energy ; but they traverse the innermost recesses of the body, irritate every order of vessels, promote a circulation through them, and thus render them pervious. It is from these effects
that

that purges are so very serviceable in bruises ; and we find out how it comes to pass, when a discharge from the urethra (for instance) is suppressed, and brings on a swelling in the neighbouring parts ; that relief is procured by such remedies. We plainly enough see by the state of the fibres, what kind of purges extend their effects farther than the alimentary canal, what kind confine their action to this bowel, and the manner of giving purges to make them answer different purposes. The action of different kinds of sudorifics is pointed out in fores ; and it is evident, from their being fretted, that though emetics are prevented by opium from acting on the nerves of the *primæ viæ*, so as to occasion vomiting, that they irritate the whole system, and thus evacuate by perspiration. Indeed, the visible effect of vomits and purges in fores seems to prove, that whatever irritates the *primæ viæ*, irritates the whole system :
and

and would any one have so clearly known the deobstruent powers of emetics, that they promote absorption, and extend their effects to the remotest parts of the body, had we not seen them reduce swellings in the extremities, and in several of the external glands? Mercury is known to pass the minutest vessels, by its being discharged upon plasters, wherever the cuticle is removed; but not in globules as some have represented. A man had occasion to take mercury on account of a pain and eruption of long standing on his head. I ordered him four grains of quicksilver, made into pills with starch and water, twice a day; and a perpetual blister was at the same time applied to that part where the pain was greatest. He took half an ounce of purging salts once a week, but in other respects lived in common with his associates; yet, in less than a month, the inside of the dressings were daily covered with a

blueish

blueish smut ; and knowing that even calomel returns to its pristine state in the stomach*, it appeared evident that the alteration the mercury had undergone was owing to its passing the circulation. The fluids with which it mixed in its passage were also probably altered, and the mode in which it was discharged shews that it enters the smallest vessels. Besides, when applied to ulcers it irritates ; and we have ocular demonstration of its thinning the juices in particular habits of body. A woman, fifty years of age, had a putrid ulcer upon her leg. Her surgeon gave her mercury, upon which it spread, and became more putrid ; but upon bark being taken, by other advice, it grew cleaner, and put on a more healthful appearance. Unluckily, however, mercury was again administered ; the ulcer spread again, and the acrimony of the fluids, which drained

* See Differ. on the Nerves.

into

into the fore, was so very great, that they destroyed all the parts with which they came in contact. The bones were laid bare, the tendons were all dissolved into rags, and the ligaments of the ankle-joint, being in the same state, could no longer hold it together; and all this under an attenuated state of blood! I then first saw her, applied antiseptic dressings, and gave her the bark with elixir of vitriol, which in time restored her to such a state, that she bore the loss of her leg, and recovered her health. Do not these facts reflect light on the use and abuse of this excellent mineral*, at the same time, that they point out the different effects of bark and mercury?

The effects upon the solids and fluids are also plainly seen in an ulcer, when a variety of other medicines are given. A woman, about fifty years of age, of a leu-

* See Venereal Ulcer.

cophleg-

cophlegmatic habit, had an ulcer upon her leg which discharged clear water ; and the fibres looked exceeding pale and inactive. She was ordered to take steel-wine twice a day, in chamomile tea, and her leg was dressed with dry lint, kept on by a soft plaister ; by this simple method the invigorating power of the steel was clearly perceived, as new granulations and good matter shortly appeared, and she recovered without farther trouble. As we go on, we shall have occasion to mention many other instances, where surgery gives ocular demonstration of the internal effects of medicines ; but these are sufficient for our purpose. And what can be more necessary in the practice of physic than a true knowledge of the nature of diseases, and of the virtues and operations of medicines ?

However, this is not all the knowledge external diseases afford to medicine ; for they have set before us some parts of the
animal

animal œconomy in its true light. Injuries which destroy the brain, or evacuate all the blood from the body, teach us, that the vital principle resides in the blood and brain ; that neither of them alone can preserve life ; and consequently, that health is maintained by a regular action of both in a sound body. Wounds or ruptures of the heart shew its importance to life, and a wound in the thoracic duct, upon dissection, has, according to Lower, *De Corde**, demonstrated the passage of the chyle to the blood. Has not the history of a wound in the gall-bladder†, taught us the office of the bile; and shewn, that fluids extravasated into the cavity of the abdomen, find a passage immediately into the urinary bladder? Tumors in the ducts leading to,

* P. 154. edit. 4to. See also Van Sw. Com. vol. ii. p. 116.

† Philos. Transf. N^o. 414. p. 341 ; or, Miles's Abrid. vol. ii, p. 212.

or coming from, the liver, not only instruct us in the use of this gland, but the nature of one kind of jaundice, that the liver is the seat of this complaint : and we have sometimes, in external diseases, ocular demonstration of the effects which bile produces when it gets into the blood. A man had an ulcer in his groin, which was cured, and some time afterwards he was seized with the jaundice, became exceeding yellow, the ulcer broke out again, and discharged a yellow matter ; but upon the jaundice being removed, the discharge soon altered its colour, and the patient was cured without any farther trouble : from whence we may infer, that the doctrine of those who assert, that there cannot be a *materia morbi* in diseases, is false ; and that the fluids, while circulating in the blood-vessels, may possess matter capable of occasioning eruptions, ulcers, and a variety of other complaints. We learn, moreover, that

that great acrimony may exist in the blood, without occasioning much injury, if it meets with no obstruction ; but if intercepted in its passage, it may destroy the vessels in which it is confined. In the case just recited, the vessels of the cicatrix probably did not give a free passage to the juices loaded with bile, wherefore it destroyed them : and does not this lead us to imagine, that, in some instances, active deobstruents, given with a view to remove obstructions of the viscera, may produce a similar effect, and destroy the patient ? On the other hand, the dissolution of the cicatrix discovers to us how it comes to pass, that chlorotic girls are so often cured by the coming on of a jaundice : for it is easy to conceive, that the bile, by its irritating and dissolving property, may render the whole state of the vessels pervious, and thus restore health ; and that similar deobstruents may frequently be given with advantage.

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Did

Did not the passage of the venereal virus from the urethra to the glands in the groin, lead Dr. Hunter to adopt and support the opinion of the lymphatics being an absorbent system*? And it is well known, that the absorption of matter from ulcers, and the inoculation of the small-pox, have established the truth of this doctrine. An emphysema following a fractured rib, in part demonstrates the structure of the cellular membrane. The incarnation of wounds gives great light into the nature of animal fibres, their diseases, and the means of restoring them to health. Fractures of the bones, accompanied with a wound, and loss of substance, point out the mode of ossification; and, indeed, there is

* It was truly, I think, a discovery, because what Hoffman (*Med. Ret. System*, lib. i. sec. 2. cap. 3.) and others had advanced, was no ways understood till after the Doctor had wrote or read lectures upon the subject. It is said, he took the hint from Freke, on the *Art of Healing*, p. 199.

scarcely

scarcely any thing which passes in the body, either in sickness or in health, which external disorders or accidents do not, if attended to, more or less explain. Surely then, those surgeons are highly blameable, who overlook such opportunities of information ! The objects before them are the most obvious, and plain road to truth ; and if, when instructed in anatomy, physiology, and medicine, they have the happiness of being spurred on by a genius capable of discerning and pursuing the hints of nature, they cannot well fail of being useful to society. This is the direct road to useful knowledge ; and the mind, when thus assisted, stands in need only of exercise to increase its strength, and to extend its powers to any purpose for which it may be wanted.

Indeed, those whose minds are mechanically actuated by instruction, are often fired with the study of medicine ; they seldom

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fail

Why the
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fail to make themselves acquainted with prevailing opinions, and are capable of hashing them up occasionally into different forms. Even the fertile genius, who scorns to think or act like other men, and often delights and astonishes us with ingenious conceits, if he does not attend to the light which nature offers, his wild theory oftener detracts from, than adds any thing to, the store of medical knowledge; because his opinion is the brat of invention, instead of being the legitimate offspring of nature. Whereas an observer of nature thinks not of *inventing* opinions, but of unveiling the sources of all true knowledge.

That our meaning may not be misconstrued, and more clearly to evince the truth of the doctrine advanced, we will give a few *examples* out of many that might be collected, in proof of the necessity of making the practice of medical surgery a part
of

of the education of those, who intend to prescribe in external diseases. Without taking this step, we shall see how impossible it will be for any one, though his classical and medical learning be *otherwise* great, to exert every advantage the art affords: and we have not any doubt, but these hints will be well received by ingenuous men, whose understanding the lust of power and wealth has not misguided; who know that it is a proper application of remedies which cures diseases; and whose good sense directs them to reject all reasoning which is not founded upon evident facts. The surgeon also will be aware of the want of a regular education in his art, of the necessity of supplying it by industry, and learning the private practice of skilful men.

EXAMPLE I.

A young gentleman, after a more liberal education than common, was bred an apothecary; but being afterwards desirous of qualifying himself for the practice of surgery, attended an hospital, and other places of instruction, more than a year in London; and then spent two winters in the medical schools of Edinburgh. At both these places he took uncommon pains, was a man of exceeding good sense, very ready in discoursing sensibly upon any part of his profession; and the Edinburgh theory of diseases, and their cure, flowed spontaneously from his tongue. Yet being called with me to a case in surgery, he fairly confessed he had not learned his business: for says he, " Though I can perform operations very well, and manage recent wounds, &c. where nature, I am convinced, will overcome many obstacles to a cure; yet in *stubborn chronic* cases,

" I am

"I am always at a loss." I saw he had a slovenly way of dressing his patient, without any intention of assisting nature by his manner of application ; and that he was a novice in the proper use of bandage. He was told, that his want of skill arose from not being properly trained up *to the art* of surgery ; and, that he had been more attentive to the theoretical than to the practical part of his profession. His good sense readily took the hint with advantage, and we hope, others in the same predicament will follow so commendable an example.

EXAMPLE II.

A servant maid scalded her ankle, and was put under the care of a young gentleman, who had not been regularly educated in surgery. Upon the sore in a little time becoming inflamed and painful, opiates were given, and a bread poultice and fomentations were applied. The pain, how-

ever, increased, the leg swelled much, the ulcer discharged a sharp ichor, became very foul, and its lips were amazingly thickened and inflamed. Internal medicines of various kinds had no good effect; and after the poor girl had undergone five months excruciating pain, with the mortification of swallowing abundance of drugs, at which her stomach recoiled, and had spent all her money, she luckily fell into the hands of a surgeon of character, who gave me this account, in a conversation on the necessity of surgeons being regularly initiated into the profession.

He concluded from the aspect of the fore, and the touch of the adjacent parts, that the whole mischief arose from their being over-relaxed, and the small vessels distended with fluids, which, by stagnating, were become acrid; and that a cure would be effected by taking off tension, and promoting a regular discharge. This he accomplished

complished by applying a very mild digestive, and strengtheners ; for upon the use of them she became easy, the matter good, and a complete recovery soon followed. Hence we see, that trivial causes may bring on troublesome disorders, when proper steps are not taken in the beginning of the cure.

E X A M P L E III.

An old man received a small wound upon his leg, which was neglected for some days, and then filled with precipitate. Pain, restless nights, inflammation, and an eschar, were the consequences ; wherefore yellow basilicon, softened with oil of turpentine, was applied, and a mercurial solution was given, which still increased the symptoms ; for the ulcer enlarged under an inflamed state, and the eschar daily increased : nevertheless the irritating dressings were still used, with the addition of a fomentation, a
poultice

poultice in which was a considerable quantity of the extract of lead, and bark supplied the place of mercury. But the disease still growing worse, fixed air was thought on, and a poultice, in a state of fermentation, was applied over the other dressings. However, this did not stop the progress of the disease; and, therefore, bark in powder was sprinkled upon the inflamed parts, and a carrot poultice was afterwards used, with no better success; so that at the end of three weeks or a month it was thought adviseable to pursue a different method. The man appeared to be of a very irritable habit, of a hot temperament of body; and it was imagined, that the turpentine dressings, and fomenting, had occasioned all the mischief. This conclusion was justified, for when a mild sedative digestive was applied, and a *cooling ointment* covered the inflamed parts, a sudden alteration for the better appeared, and a happy termination

termination of the disease was the consequence.

Various methods of cure for corrosive ulcers have long been known : whenever, therefore, we see men prefer novelty in medicine to common sense ; give up a successful established practice, and tamper with remedies that have started from some new system ; we may conclude, either that they do not know what they are about, from not being properly initiated into their profession ; or, that they affect to despise the established usages of their art, in hopes of exciting admiration for superior abilities. For though improvement, conducted upon clear facts, is certainly of the highest importance to society ; yet nothing, perhaps, has done more mischief in the art of healing than the hasty catching at undigested novelty ; for, like an *ignis fatuus*, it often misleads and leaves us in the dark.

EXAMPLE

EXAMPLE IV.

A healthy young gentleman had the misfortune to make a slight wound on the upper part of his foot, in skating, and some family-salve was used on the occasion. Instead of healing, the fore inflamed, and discharged an ichor; upon which a surgeon was sent for, under whose care the flux, &c. increased. He tried various means to conquer the malady, and, after being sometime foiled in his attempts, he laid the blame upon the peccancy of the humours, and desired the assistance of a physician; and, accordingly a physician, educated many years in one of the first medical schools in Europe, was called in.

The doctor viewed the foot, and prescribed; but the state of the fore proved, that his medicines did not alter the disease. He varied his prescriptions as disappointment and *imagination* directed him; and, during the
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the space of three months, while the patient was confined to the house under his care, he ransacked the whole *materia medica* for combatants to subdue an ill state of the juices. Sometimes he attempted to scour them entirely out of the premises, by repeated purging; at other times he dealt more friendly, by sending in remedies to alter their temper; nor did he omit an attempt to starve out the imaginary enemy, by keeping the patient under low diet. Disappointed of relief, enervated, and tired with the disagreeable passage of a tribe of nauseous drugs through his stomach; the patient desired the assistance of another person, who happened to see this affair in a different light from his predecessors, and found the juices in good humour enough, though reproached with virulence and obstinacy.

The appearance of the patient's skin at once shewed it to be of that kind which is
very

very irritable. Being asked whether even simple plaisters, applied at any time, did not raise small blisters which discharged an ichor, he answered in the affirmative; and upon tracing the matter throughout, it seemed evident the whole mischief had arisen from, and was continued by, the applications in this habit irritating and inviting a flux of lymph to the affected part; in the same manner as blistering ointments, in less irritable habits, produce a perpetual blister.

The foot was now much swelled, somewhat excoriated, and become more irritable from the long-continued flux brought upon it, and yet the doctor, was again for prescribing calomel, &c. But as purges always increase the discharge and irritability of sores, the surgeon, unwilling to be interrupted, desired a truce from hostilities, that he might judge from the effects of a few dressings, and an alteration in the diet
of

of the patient, whether internal medicines were necessary. Accordingly by the use of a neutralized ointment, which both lessened irritability, and removed obstruction, and the patient living upon a more generous diet, he was soon cured, -without the assistance of internal medicines; except a little extract of bark and gum pills, given to relieve some hypochondriacal symptoms, brought on by the discipline he had unnecessarily undergone, and which could not have happened had the prescriber been an adept, from practice, in the cure of external diseases. If the physician had been conversant in dressing of sores, he would at once have seen the cause of intractability in this accident. His viewing the foot, therefore, was only a matter of form, from whence it is plain he derived no advantage.

Would not the physician, if he had been suffered to continue purging the patient
fre-

frequently, have prevented a cure in opposition to all the surgeon could have done? And could internal remedies have done any service, while irritating dressings were applied?

E X A M P L E V.

A gentleman had a large ulcer upon his leg, which was dressed with digestives compounded of turpentine, rosin, &c. The matter discharged was ichorous, and corroded the ends of the fibres, so that they appeared curdled; while the edges of the sore were a little inflamed. The ulcer, which was very sensible to the touch, brought on an uneasy sensation over the whole body. The patient could not sleep; and restless nights, with weary days, for several months, destroyed his health, and reduced him to an exceeding weak state.

His physician, a man of liberal education, and much experience, ordered him
opium,

opium, and the bark in considerable doses, but without affording any sort of relief; when being almost worn out with watching and fatigue, another physician, who practised both medicine and surgery, was called to give his assistance.

Upon hearing what had been done, he was aware that the parts had been constantly irritated by the dressings; and experience had taught him, that native balsams, divested nearly of their heating quality, were in this case proper sedatives. Under this idea he advised the sore to be dressed with the balsam made of pitch, &c. and the edges to be afterwards covered with a neutralized ointment. Relief from pain was followed by sleep in a few hours, and while he took bark and spirit of salt, under a state of ease, health was restored to the body.

How could a physician form any true judgment from the appearance of a sore,

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who

who had never examined sores critically? He did not suspect the dressings, because they were much milder than the digestives of the London Dispensatory; how then could he have advised a proper sedative without experience, unless by accident? For had the sore been differently circumstanced, a different application must have been chosen for the purpose.

E X A M P L E VI.

A corpulent farmer took his daughter behind him to a race, and, to avoid accidents, rode into a corner on the outside of the course. A gentleman, upon a vicious horse, rode into the same place from the same motive; but unluckily as soon as he came near the other horse, the farmer received a violent kick on the outside of his leg, which made a large lacerated wound. The surgeon, who had been bred an apothecary, applied digestives, and an emollient

emollient poultice, under which treatment, long continued, the wound degenerated into a fordid ulcer, and in time his health began to be injured. The patient lost his flesh, his complexion became fallow, he had a hectic fever, and frequent returns of an erysipelas on his leg, which all together alarmed the family, and induced them to think of farther assistance. The surgeon recommended a physician, who was incapable of reducing the ulcer into a healing state, though the patient remained under his care near a year. The frequent returns of the erysipelas, rigor, and fever, were said to be beneficial, by keeping off other fevers ; that the stoppage of the discharge might occasion his death ; and yet, with all these pretended advantages he became greatly emaciated, and daily declined in health. Upon this, he applied to a third person, to whom he gave a narrative of all that had been done ; he said he was

in perfect health at the time of the accident, and it was concluded, that the poultices, by over-relaxing the skin, *membrana adiposa*, &c. had rendered their vessels incapable of carrying on the circulation regularly ; that hence a stagnation and acrimony in the juices had ensued ; and that the hectic fever and erysipelas were all owing to an absorption of matter from the fore ; for that the leg being healed under proper treatment, would re-establish his health, provided the *viscera* were not injured. Happily this was not the case, for he perfectly recovered upon the fore being cured.

The local management of the leg was out of the physician's line ; he could not therefore cure the patient, because this depended upon healing the ulcer. He might no doubt, assist in abating inflammation when the erysipelas came on, by prescribing cooling remedies ; but this was
only

only a temporary relief, which would, for the most part, have been accomplished by emollients, and promoting a plentiful discharge from the fore.

E X A M P L E VII.

When Lord Chesterfield's * legs swelled violently after a fever, neither Mead, Broxholme, nor Arburthnot, did him the least good ; but, on the contrary, increased the swelling by applying poultices and emollients. In this condition he continued near six months ; till finding that the doctors could do him no good, he resolved to consult Mr. Palmer, the most eminent surgeon of St. Thomas's Hospital. This gentleman told him that the physicians had pursued a very wrong method, as the swelling of his legs proceeded from a relaxation and weakness of the cutaneous vessels ; and that he must apply strengtheners in-

* Letter 370.

stead of emollients. Accordingly he ordered his legs to be put up to the knees every morning in hot brine*, in which meat had been salted. In three weeks time his Lordship was well, and he was hence led to conclude, that a right method of proceeding must be deduced from *a view of the parts*, to understand the manner in which they are affected. It will not be thought strange, that such eminent physicians should persist six months together in a practice which suffered the disease to increase, when we reflect upon the partiality of mankind to their own opinions, even when they reason from conjecture!

Conjectural reasoning fallacious.

Whoever takes a view of what has been done by human reason, unsupported by evident facts, will find, if we may judge

* The intention in this instance was no doubt right; but we do not think his practice the most eligible, though it shews that any method founded in experience is preferable to that which is derived from the reasoning only, of the most ingenious men.

from

from the fate of those theories which have originated in speculation, that there is not any thing more fallacious ; and that it is always to be mistrusted when thus employed. On the contrary, when reason is founded in nature, it certainly is one of the greatest blessings bestowed upon mankind ; the proper office of theory not being to invent principles, but to explain and extend facts into use, without losing sight of them. It is very certain, if the physicians concerned in Lord Chesterfield's case, had, like Mr. Palmer, been trained up practically to the cure of swellings of the legs, and had reasoned from facts, they would have known better how to have treated his complaint : and if surgeons neglect to extend their views farther than performing operations, they will be equally incapable of assisting those who apply to them for relief.

Reason
founded
in nature
useful.

The busi-
ness of
reasoning.

R E C A P I T U L A T I O N.

Conclu-
sion.

Upon the whole, it appears that no person possesses real knowledge, in any part of medicine, beyond what is acquired by observation and sufficient experience; that though dividing the practice of medicine into shares may be convenient for individuals, yet there is no studying this science thoroughly, but upon the plan of Hippocrates, in a complete union of its branches. It may be compared to a circle, which will not admit of any division of its parts, without injury; and accordingly Celsus asserted, that all the parts of medicine are so connected, that no one part can be separated from the whole: all which will hereafter more fully appear.

P O S T-

P O S T S C R I P T.

MIDWIFERY is another branch of surgery, in which the physician and operator ought to unite in the same man ; it being impossible to treat the disorders of pregnant and lying-in women without a perfect union in these offices. Without learning the practice of midwifery experimentally, and being able to distinguish properly regarding the state of the womb, and the alterations women undergo on this occasion, by due inquiry, all ideas will be very imperfect, and prescriptions upon general knowledge will be more liable to do harm than good. On the other hand, if the operator has not made himself thoroughly acquainted with all a physician ought to know, the life of his patient may be in jeopardy, whenever he takes upon himself the management of any disorder which may happen after delivery.

Dr,

Dr. Mead *, indeed, seems not to think a knowledge in the obstetric art introductory to the office of prescribing in tedious births; for he supposes even those who are skilful in this branch, unacquainted with the means of mitigating or taking off false pains resembling those of the colic: and I have heard of others, though they never learned or practised midwifery, who think they ought to have the direction in all tedious labours, and that the *accoucheur* has nothing to do in ~~such~~ ~~cross~~ births but to receive the child. Dr. Shaw † imagined he was capable of giving directions in difficult births, when he wrote upon that subject; and yet it is clear he did not well understand it. We cannot have a better instance to shew the

* Monita & Præcept. Med.

† We must not omit, that the doctor, many years afterwards, acknowledged with great candour, his temerity in giving a Practice of Physic, before he could have had any competent experience. See preface to Dr. Heister's Observations.

impro-

impropriety of giving directions, where practice has not made a man perfect in the business, than this writer's account of a natural delivery, and of the means which should be taken to assist it !

Now the use of opium in false pains had been known long before Dr. Mead's time, and practitioners in this art had other necessary resources, which he omits mentioning, to alleviate these troublesome symptoms ; for they knew that opium would often prove ineffectual, where clysters were not previously given : and are there not other complaints attending women in labour besides the colic, in which opium is equally useful ? In a state of great irritability, where excessive violent pain, accompanied with irregular spasms, hinder the progress towards delivery, opium reduces all into order by lessening the sensations of the patient. Nor are opium and clysters the only remedies by which false

pains are subdued, for they not unfrequently arise from an inflammation of the womb. True labour is only to be brought on in such instances by bleeding and purging*; and when each of these methods are to take place, or whether the pains are true or false, only can be known to those who are capable of judging from the sensation of the parts concerned, and the effects which the pains produce. The same may be said regarding false pains, and those which sometimes much resemble them, brought on by an obstruction in the passage of the child. If a proper distinction is not made, we may be trifling with opium when something else ought to be done; and this remedy may, in other instances, protract the labour when not timely given.

There is no author that I recollect, among modern writers, who has examined into the truth or falsehood of the very an-

* See Essay on Child-Bed Fevers.

cient opinion regarding the influence of the moon on women in labour! If true, it explains the lingering and periodical returns in parturition which sometimes happen, and at what time opium, if necessary, ought to be administered: I shall therefore take this opportunity of reciting what I have heard, and the observations I have in consequence made, in my attendance on women in this situation.

More than twenty years ago, when talking of the opinion concerning the influence of the moon upon the human body*, with a gentleman of learning and clear understanding, he informed me, “that a clergyman, in Gloucestershire, had made observations many years upon what happened in her different motions. Among other things he found, that the symptoms of parturition very frequently came on at her southing, or at the opposite point;

* See Essay on Inflammation.

“that,

“ that, if they went off, or lingered for a
“ time, they returned at these periods, as
“ regularly as the moon, till the work was
“ accomplished : and so great an adept was
“ he in this species of augury, that, being
“ consulted by his rural neighbours, when
“ they had reason to expect the event, he
“ was able to foretel at what hour their
“ herds would increase ! He brought his
“ son up to surgery and midwifery, who,
“ in consequence of the instructions he re-
“ ceived from his father, attended to these
“ circumstances in his practice at Gloucester ;
“ and found they very often corresponded
“ with the observation the old gentleman had made, where no impediment was in the way.” It was in consequence of the gentleman’s lady being in labour that this discourse happened ; and to shew the truth of this doctrine, he wished him to remember that she began at five in the morning, that he was of opinion

nion she would linger all day, and that the labour pains would return again with vigor before six in the evening : all which happened with the most desirable accuracy. Indeed, he was furnished with so many similar instances from the surgeon, that I could not avoid attending to what he said upon the subject.

At first I had recourse to the common fouthing tables, and afterwards to one more correct ; and by all of them there appeared to me to be some truth in what I had been told. The beginning of labour is sometimes so obscure, that it is hard to fix the time ; but as often as it can be done, I wish notice may be taken whether the following observations bear any resemblance to truth.

If the woman is at her full time, and every thing in proper order for a happy delivery, it will often be completed in consequence of the first impression made by this planet.

If,

If, from the peculiar situation of the fœtus, more time is required; at which ever period of the moon the labour begins, it will go on twelve hours and a half or thereabouts*, which is the time she takes to gain the opposite point, and will then, perhaps, terminate.

If the labour has not advanced during the interval, no material alteration may happen till she completes her diurnal revolution; or where there is any slight impediment in the way, twelve hours and a half more, or double that number may elapse before the attendants are released. For instance, at nine o'clock in the morning, while a lady was sitting easy in her chair, symptoms of approaching labour came on without the least pain; and this upon inquiry, I found happened about the

* The moon takes from twenty-four hours and forty minutes to twenty-four hours and fifty-seven minutes to perform her diurnal revolution; but, from various observations, I think, the pains recommence when she begins to get near the opposite point, perhaps within half an hour, though it may be more or less.

fouthing

southing of the moon. As no pain followed, I imagined the child lay high, and that labour pains would not come on till next morning, which accordingly happened; for she was perfectly easy all day, and had an exceeding good night, but betwixt nine and ten o'clock next morning she suddenly fell into labour, and was soon delivered.

Another was seized in labour at five in the evening, at the southing of the moon; but the pains diminished in about an hour, leaving the *os uteri* not dilated more than the size of a six-pence. Lingerings pains followed all night, and betwixt five and six in the morning, when they increased, the dilatation was about the circumference of a half-crown. Labour, however, did not now terminate, for it soon decreased, and lingering pains again ensued, till about six o'clock in the afternoon, when they returned with force and effect; nature completing her work in about the space of an hour.

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Another

Another woman had been in labour five days, and on Thursday in the afternoon, when I first saw her, I was told by the midwife that the child's head had been in its present situation ever since Monday morning ; and that strong pains had periodically returned. Upon examination, I found the birth had been protracted by the head resting against the *os pubis* ; wherefore, I desired that she would lie upon the bed with her shoulders lower than the rest of her body, which had the desired effect of removing the obstacle : for when the pains returned at the lunar period, she was soon delivered with great ease. I may truly say, I have frequently met with similar instances ; and have often kept my patient and the family in temper and in spirits by my predictions, through a tedious labour, which is a matter of no small concern in the practice of midwifery. In this instance, the lingering or intermediate pains are preparatory to the
future

future event ; and we may wait with ease of mind till the happy minute arrives, without offering any other assistance than what comes from the hands of the nurse. Indeed, when the patient is much fatigued, recourse may be had to opium, but it should not be given near the time we expect the pains to return ; because by lessening irritability at this period, we may protract the labour longer than would otherwise happen. In short, every old woman in the kingdom knows, that women after falling in labour often get better, and go on to the opposite hour, or, perhaps near twenty-four or forty-eight hours longer ; soon after which the pains recommence with vigour, and nature finishes her work. These periodical effects are certainly governed by some periodical cause ; and, if we cannot find a better than the ancients assigned, we may still cry out with Glycer, *Juno Lucina fer opem, serva me obsecro.*

These

These reflections are not to be confined to the management of false or lingering pains ; for suppose, a woman to be seized with convulsions at the onset, or any time in labour, in what manner can a prescriber direct with true judgment who is unable to make a proper inquiry into the complaint? and why should guess-work take place where true information may be obtained? Regarding child-bed fevers too, the prescriber will be in the dark if he is not able to draw conclusions from the size of the abdomen previous to labour ; from the progress of the labour, from the evacuations which naturally happen, from the coming away of the placenta, from the different appearances of coagulated blood, and from a hundred other things, which can only be known by those who practice midwifery: it is therefore incumbent on physicians, who intend to prescribe in puerperity to learn this art, and I believe it was never better taught than in these days.

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